

THE PROFESSIONAL NAME OF ACTUARY

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ACTUARY is a curious word by which to describe the profession to which it has become attached. There is no obvious connexion between the meaning of the word and the professional duties which it signifies. Moreover, the title of actuary is still in use for other officials who may by their duties have a more direct claim to the title from its original derivation. T. E. Young (*J.I.A.* 33, 480-5) devoted part of a Presidential Address to the origin of the word, and present members of the Institute may be interested in an investigation into the way in which the name came to be attached to the profession.

ACTUARIUS AND THE ACTUARY

The word *actuary* is derived from the Latin *actuarius* for which, for example, Lewis and Short give the two meanings, a shorthand writer and one who writes out accounts. These definitions scarcely seem to do justice to the duties of the *actuarius* in the Senate, but there is no precise knowledge of what those duties were since they can only be inferred from the context in which the word was used in Roman times.

According to the *Oxford Classical Dictionary* the *acta* were, roughly speaking, the legislative enactments of the emperor in contradistinction to the laws of the State, as derived from the Roman Republic. The *Acta Senatus* constituted the official record of the proceedings of the Senate under the Roman Empire. The *Acta Diurna* were, in effect, a gazette whose daily publication dated from 59 B.C.; it recorded important social and political news and was read in both Rome and the provinces.

T. E. Young examined the evidence and concluded that the various *acta* were compiled for public use by the *actuarius* and that, in the preparation of this work, he collected the social events from the official registers and the decisions of the magistrates from the shorthand reports of the *notarii* who attended the Courts, but that the *Acta Senatus* were compiled by him from notes of its proceedings which he himself, and he alone, had taken in shorthand. The present writer is privileged to say that Prof. W. K. C. Guthrie, of Peterhouse, the Public Orator of Cambridge University, who has seen a draft of this article, confirms that T. E. Young's conclusions are likely to be correct, so far as can be known.

The *Encyclopædia Britannica* (3rd ed. 1797) stated that, in the Eastern Empire, the *actuarii* were properly officers who kept the military accounts, received the corn from the store-keepers and delivered it to the soldiers.

The *Oxford English Dictionary* gives three meanings of the word 'actuary':

- (1) A registrar or clerk, a notary; an officer appointed to write down the acts or proceedings of a court.
- (2) The managing secretary or accountant of a public company (noted as being obsolete).

(3) An official in an insurance office, whose duty it is to compile statistical tables of mortality, and estimate therefrom the necessary rates of premium, etc.; or one whose profession it is to solve for insurance companies or the public all monetary questions that involve a consideration of the separate or combined effect of interest and probability, in connexion with the duration of human life, the average proportion of losses due to fire or other accidents, etc.

The first definition is supported by four examples from 1553, 1658, 1667 and 1717. The Court of Arches had an official called an Actuary (now the Registrar) whose duty was to attend the Court and set down the judges' decrees. The Lower House of Convocation had and still has an official called an Actuary who registers the Acts and Constitutions of the Convocation. In this usage the title of actuary derives directly from the Latin *actuarius*. It can scarcely be maintained that this meaning is obsolete, although its sound may have an archaic ring in the ears of the professional actuary.

The second definition is supported by a quotation from the year 1804 and the third by one from 1849. Clearly, the implication is that the third more specialized meaning developed by a limitation of the second, earlier and more general usage (*Encyclopædia Britannica* says as much). This is difficult to accept, though it is true that the meaning developed with the passing years. A. B. Du Bois in *The English Business Company after the Bubble Act* does not mention the actuary except in reference to the Equitable Society. During the eighteenth century, which was a period of experiment in various types of business organization, it was the custom for the business affairs of a company to be managed by the directors, often through committees. Thus it was natural that the title of the chief executive official should be secretary, though treasurer was sometimes chosen and accountant was also in general use for the appropriate subordinate official. It seems more likely that the second definition of actuary in the *Oxford English Dictionary* was based on an example of the use in a general sense of a word which was coming to be used in a specialized but as yet not clearly defined sense.

The third definition would, of course, be somewhat too narrow at the present time.

THE CHOICE OF THE TITLE OF ACTUARY

Study of the early records soon shows that when the title of actuary first became attached to members of the actuarial profession it did not carry the meaning that it has to-day. The profession grew in response to the demand for persons with the requisite mathematical skill to deal with problems involving life contingencies, especially in connexion with life assurance offices and similar provident institutions. Not all such persons were called actuaries. Some professional men who performed the duties of actuaries were called by other titles and some who had the official title of actuary lacked the professional skill.

By way of showing how the word acquired its professional meaning the endeavour has been made to trace appointments of officials with the title of actuary against the background of the growth in the field for employment of actuaries. This field mainly consisted of those life assurance companies whose premium scales were graduated by age, for such business required actuarial calculations.

The Amicable Society, which was founded in 1706, was based on the principles of a dividing society, the premiums being divided among the claims each year. The chief official was called the Register (*sic*), and since the operations of the Society required no actuarial calculation it would be difficult to say whether the officials that held that office should be regarded as actuaries. The choice of the title of Register may well have influenced the subsequent choice of the title of Actuary for the similar official of the Equitable Society.

In the eighteenth century many mathematicians were asked to give advice on problems of an actuarial character, but they were not called actuaries. This was true of James Dodson, F.R.S., who was the first to calculate a scale of premiums for a life assurance society. His calculations were made in 1756 for the assistance of a group of people who had been gathered together with the purpose of securing a charter for a new life office. The office was to operate as a mutual life assurance society on the basis of Dodson's calculations. In effect, he acted as consulting actuary to the group though he was never, of course, given that name.

Dodson died in 1757. Though the group continued their efforts the application for a charter was unsuccessful, being finally rejected in 1761. The leadership of the group had passed to Edward Rowe Mores, and in the following year he was successful in establishing the office under a deed of co-partnership with the title, The Society for Equitable Assurances on Lives and Survivorships. This deed specified that the chief official should be called the Actuary—so far as is known this is the first use of that title by a business concern.

Why was the title of actuary chosen? It may be assumed that the name was chosen by Mores but there is no evidence why he did so. Mores would have been familiar with the title of actuary for the official who records the decisions of a court. He may have felt that some special title was required for the chief official of the new organization and that *Actuary* would be appropriate, since the principal duties of the new official would be to register the contracts made by the Society. If so, he showed a remarkable prescience. Possibly, however, he was merely indulging in an antiquarian whimsy of his own.

Edward Rowe Mores, M.A., F.S.A. (1731-78), was a curious character. He was educated at Merchant Taylors School and Queen's College, Oxford, where he gained his M.A. in 1753. He seems to have had a clear head for business. Thus he wrote to a learned author of a book on Croydon, whose manuscript he edited,

Good Master Doctor, These are little better than confused notes. They must be reduced to order under the following heads. . . .

At Oxford he attracted attention by the extraordinary range and depth of his learning and by the eccentricities of his conduct. He was fond of Latin, and from his daughter's earliest infancy he talked to her principally in that language. His fellowship of the Royal Society of Antiquaries is indicative of his early interests, which also included heraldry. It seems that the reasons for the choice of the curious title of actuary lie in the character and interests of Mores.

THE DUTIES OF THE ACTUARY

It should not be assumed that the official who was appointed to the post of Actuary was at once expected to do all the work that would now be described as actuarial. The evidence is to the contrary. The following summary from the

deed of settlement of the Equitable Society shows the duties that Mores expected of the Actuary.

The Actuary

1. shall give constant attendance at the House or Office of the Society on each day (Sundays only excepted) to receive proposals and execute other business
2. shall, in a fair and clerk-like hand, method and manner, write and keep all the books of the Society
3. shall regularly enter every day, into a Journal to be kept for that purpose, all applications for membership and all such sums of money as shall be received or paid by or for the use of the Society and of every other occurrence which shall fall out and come first to his knowledge, relating to the affairs and business of the Society
4. shall enter up the minutes of the proceedings and orders of the Court of Directors, and of the General Courts or Meetings of the Society.

It will be seen that the duties did not include the calculation of the premium scale, the valuation of the liabilities, the selection of the risks, nor any of the responsibilities that are now distinctive of the professional actuary's work. Such responsibilities were the concern of the directors and they would rely on Mores for actuarial advice. In fact, actuary was a synonym for secretary but applied to a specialized business.

The first four Actuaries of the Equitable Society were William Mosdell, 1762-64, James Dodson, 1765-67, John Edwards, 1767-73 and John Pocock, 1774-75. They were not actuaries in the professional sense, for they do not seem to have had the mathematical ability to grapple with the actuarial problems of the Society. At first Mores was available and, later, actuarial advice was sought from independent men with mathematical ability. Richard Price, D.D., F.R.S. (1723-91), gave advice to the Society at intervals from 1768 to the time of his death.

The first Actuary of the Society who could be called an actuary in the professional sense of the word was William Morgan, F.R.S. (1750-1833). He was appointed to the newly created office of Assistant Actuary in 1774 and was elected Actuary in 1775 after the untimely death of Pocock. Morgan was Actuary for 55 years, retiring at the age of 80 years in 1830. There is an attractive account of him by Sir William Elderton (*T.F.A.* 14, 1).

Morgan had exceptional qualifications for the post of Actuary because he was an able mathematician with medical qualifications and an interest in experimental science. He was responsible not merely for the general management of the office but also, at first under the guidance of his uncle, Richard Price, for the calculation of premiums, the valuation of the liabilities, the analysis and distribution of surplus, and so on. In this work he was a pioneer whose task was to develop and extend the original work of Dodson and Price and to apply the theoretical solutions to actual business problems. Thus, he built up the business of life assurance on firm, mathematical foundations.

In those days there were few persons who could be consulted about actuarial problems. Morgan's abilities were soon recognized and his opinion was sought on a wide variety of subjects. He was asked to value reversionary interests and annuities. The Government consulted him when the National Debt Office began the sale of life annuities in 1808. The promoters of other

life offices, e.g. the London Life Association and the Scottish Widows, came to him for advice. The appointments of Joshua Milne to the Sun Life in 1810 and of Griffith Davies to the Guardian in 1822 were made on his recommendation. He also had a large practice in certifying the rules of friendly societies. No doubt it was chiefly his example as the member of the profession who gave evidence to the relevant Parliamentary Committees that led to the first mention of professional actuaries in the Act of 1819 relating to friendly societies. It seems not too much to say that he effectively created the profession which is called by the title that he bore with such distinction.

THE OLDER CORPORATIONS

The management of life assurance business required a mathematical ability which thereby became a characteristic of the professional actuary. This came to be recognized by the older corporations, but they were slow to adopt the title of actuary for the official who was in charge of the life assurance business. Thus in the early history of actuarial science there were officials of life offices who were actuaries in all but name.

The Amicable Society was reconstructed by a Charter of 1807 which provided for the adoption of a graduated scale of premiums. On 31 December 1806, just before the reconstruction, the directors' minutes show that the need for mathematical ability in the management was beginning to be felt by them:

On Motion made and seconded the several sections of the Charter, relating to the appointment of a Registrar to this Corporation were read, and it appearing to this Court that no particular Rules were therein prescribed for the Election of that Officer upon Death Removal or Secession, and that there did not exist in the proceedings of any former Court of Directors any resolution to regulate their Conduct in case of such an event, and this Court being duly sensible that very considerable abilities, great assiduity and diligence, together with a particular acquaintance with the Rules of Calculation are necessary to fill the office of Registrar with Credit and Advantage to the Society (all of which are eminently conspicuous in their present worthy Registrar) are of opinion that some Rules and Regulations should be adopted for the guidance of the Court of Directors whenever a vacancy may happen in that Office, and after much mature deliberation on the subject

It was Resolved . . .

The minute used the now customary spelling of *registrar*, but the actual title of the Amicable's official preserved an earlier spelling. According to the *Oxford English Dictionary*, the original form of the word as used in the fourteenth, fifteenth and sixteenth centuries was *registrer*, presumably under the influence of Old French. The spelling in common use about 1580-1800 was *register*, as for the Amicable's official. The modern form of *registrar* is found in Blackstone (1768) and has been common since the nineteenth century.

The earlier registrars of the Amicable Society may not have had sufficient mathematical ability to be counted as actuaries, but John Pensam, Register 1800-33, and Thomas Galloway, M.A., F.R.S., Register 1833-51, were actuaries though they had not that official title. In evidence before a Committee of 1827 John Pensam was asked

You are actuary of the Amicable Society?

and replied

Under another name which includes the duties of actuary.

Evidently, by this date the professional duties of the actuary had become sufficiently clearly defined to be referred to in that way. When John Pensam retired in 1833 the Directors said of him:

that he found the Society in a state of comparative insignificance, small in numbers and resources, and that he quits it in a state which justly entitled it to rank in respectability and character, with any of the insurance offices of the present day.

His successor, Thomas Galloway, was a founder member of the Actuaries' Club.

The Royal Exchange Assurance (founded 1720) was the first office to compete directly with the Equitable by putting its life assurance business on to a scientific basis in 1783. In that year this office commenced a new life assurance fund for the transaction of temporary and whole-life assurances with premiums suitably graduated for age and period of assurance. No record survives of the name of the person who made the actuarial calculations. At this time the chief executive of the office was the Secretary, who in 1783 was Samuel Fenning. The following are the names and titles of the officials who were in charge of the life department, with the dates of their appointments:

Year of appointment	Name	Title, if any
1784	Tilman Henckell	—
1788	F. L. Morgan	Life Accountant
1792	W. Fairman	Life Accountant
1820	J. D. Bayley	Life Accountant
1838	B. P. Bidder	Actuary
1848	J. A. Higham	Actuary

Thus the Corporation did not use the title of Actuary until 1838, though J. D. Bayley was an actuary and some of the earlier officials may have been so, in effect.

The London Assurance adopted a graduated scale of premiums for life assurance in 1809, but its first use of the title of Actuary was for John Laurence II, who was Secretary 1826-69, and also Actuary 1831-50. He was a member of the first Council of the Institute of Actuaries. The Union (founded 1714) started life business in 1813 but does not seem to have used the title of Actuary till some time later.

ACTUARIES AND LIFE OFFICES FROM 1762 TO 1819

So far it has been shown that the title of Actuary was first adopted in 1762 by the Equitable Society and that the title was not used by the older corporations until some seventy years later. The attempt must now be made to trace the use of the title by later offices, though this is difficult because of amalgamations and transfers of business.

The second instance of the use of the title of Actuary is to be found in the deed of settlement of The Westminster Society for Insurance of Lives and

Survivorships, which was established in 1792 after an unsuccessful attempt to obtain an Act of Parliament three years earlier. This deed of settlement presumably contained a reference to the Actuary as an alternative title for the Secretary, since an Act of 1814 refers to the 'Secretary or Secretaries, Actuary or Actuaries'. The one name was merely an alternative for the other—the Schedule to the Act provides for the signature of 'A.B. Secretary or Actuary'.

In an article on Assurances in his *A Mathematical and Philosophical Dictionary* (vol. 1, 1796; vol. 2, 1795), Charles Hutton, LL.D., F.R.S. refers to the Westminster and to

the equitable terms on which it proposes to deal, and the known ability and accuracy of the mathematicians and calculators employed in conducting it.

Who were these mathematicians and calculators? There is no record of their names, but it is interesting that Hutton does not call them actuaries.

The third instance of the use of the title of Actuary was in 1806 in the deed of settlement of the Rock Life Assurance Company, which recited that William Frend had been elected as Actuary by the Board on 23 April 1806. The wording of the deed suggests that that officer was regarded as being merely the senior of the clerical staff, i.e. the Secretary, but the man elected to the post had the requisite ability to make the appointment into an actuarial one.

William Frend, M.A., was educated at King's School, Canterbury, and Christ's College, Cambridge, where he was Second Wrangler and Smith's Prizeman in 1780. He was elected a Fellow and Tutor of Jesus College and took orders in 1783, but he soon came to hold unitarian views which lost him his post as College Tutor a few years later; a pamphlet of his published in 1793 led to his removal from the University. Thereafter until 1806 he lived in chambers in the Middle Temple, being engaged in various forms of literary work, scientific and statistical.

With the promotion of the Rock in 1806, Frend became a professional actuary. He was friendly with William Morgan, with whom he was associated in certifying the rules of friendly societies. He was Actuary of the Rock from 1806 to 1827, when ill-health compelled him to retire. He died in 1841 at the age of 84 years. His eldest daughter, Sophia Elizabeth, married Augustus de Morgan. Her reminiscences in *Threescore Years and Ten* contain much information about her father.

The fourth instance of the use of the title of Actuary was in 1808 by the Norwich Union. The fire office had been founded in 1797, and when the life assurance business was started in 1808 it seems to have been treated at first as a department of one organization with the fire office, though being on the mutual principle, the life fund would have been a separate fund and, in fact, the life and fire offices developed as separate organizations. The chief executive official was the Secretary, Thomas Bignold. The life business was in charge of Richard Morgan (not related to William Morgan) who had the title of Actuary. It may be suggested that some special title was required for the Secretary in charge of the life business and there was a happy precedent for the title that was chosen.

The fifth instance of the use of the title of Actuary was in 1810 by the Sun Life, which was a proprietary office founded in association with the Sun Fire Office at the time when that office was celebrating its centenary. Rough

minutes of the first meeting of the Committee of Managers on 28 March 1810 record that:

The Committee think that as an Establishment in ye First Instance an Actuary and a Clerk is necessary and sufficient.

The Committee had second thoughts because 'and a Clerk' was deleted: the Actuary, unsupported, was sufficient!

The Committee had consulted Francis Baily, F.R.S., about the premium rates to be charged by the new office and, when they were considering the appointment of the Actuary, information about possible candidates was sought from him and also from William Morgan and William Frend. As has been mentioned Morgan recommended Joshua Milne (1776-1851), who was appointed Actuary. Milne, the author of the Carlisle table, was Actuary of the Sun Life from 1810 to 1843, for the first three years on his own but with some clerical assistance from the Sun Fire Office. The little that is known about Milne was garnered by F. M. Ireland in articles written in 1953 for an office magazine.

In those days it was a difficult legal process to secure the benefit of incorporation for a business enterprise and, in consequence, life offices were commonly established under deeds of settlement in the legal form of partnerships, whether the constitution was, in fact, mutual or proprietary or what was called mixed (i.e. the policyholders sharing with the proprietors in the profits of the office). Many of these offices obtained Acts of Parliament to enable them to sue and be sued in the name of an individual who would usually be the chief executive of the office. Historically, these Acts give useful evidence of the official titles which were in use at the time. A substantial majority of the offices chose the title of Secretary.

In connexion with these Acts there is a curious bit of evidence which is difficult to interpret. The Sun Life Act, which was dated 17 December 1813, was entitled:

An Act to enable *The Sun Life Assurance Society* to sue and be sued in the name of their Chairman or Secretary, under certain Regulations

The similar Act for the Sun Fire Office mentioned the Treasurer.

It might be supposed that Milne, the Actuary of the Sun Life Office, or possibly some official of the Sun Fire Office, was expected to use the title of Secretary for some purposes. There is no evidence that this was so, indeed there is much to the contrary, and some other explanation should be sought.

It may be suggested that the mention of alternatives 'Chairman or Secretary' was simply a legal formula to cover the case of an office which had a Chairman but no Secretary. But why did not the Act provide for the Sun Life to sue and be sued in the name of its Actuary? Were the Actuary and the Secretary thought to have different functions? Yet there is still preserved at 63 Threadneedle Street a letter which was written by Milne in 1810 about the original allotment of shares, a purely secretarial matter.

In the prospectuses of the Sun Life, Milne and each of his successors were described as Actuary and Principal Officer until in 1882 the then Actuary, John G. Priestley, was appointed Actuary and Secretary. This was the first use of the title of Secretary by that office.

Other offices formed up to 1819, their dates of foundation and business were:

Life business	Life business with fire business until the 1820's	Fire and life business
Pelican (1797) Provident (1806) London Life (1806) Scottish Widows (1815) European (1819)	Albion (1805) Eagle (1807) Hope (1807)	Palladium (1797) Globe (1803) Atlas (1808)

Note. The Palladium may not have started life assurance business till a few years before 1825, when Thomas Young, M.D., F.R.S., was appointed Inspector of Calculations.

Some of the offices, especially those which transacted fire as well as life insurance, may have used the title of actuary for a subordinate official, but it seems unlikely that they did so. A possible example is George Barrett, who is stated to have been actuary of the Hope in 1815-17.

Some of those who took part in the formation or the early operations of these offices should be counted as professional actuaries, though they never bore that title. For example, Henry James Brooke, F.R.S., who was one of the original directors and, from 1827, the Secretary of the London Life Association, was a professional actuary; his obituary notice is printed in *Y.I.A.* 7, 286. Patrick Cockburn made the calculations on which the Scottish Widows Fund was established and is described as their first Actuary, though he was a director, not an official at all.

The first Secretary of the Atlas, Henry Desborough, was assisted in the life department by George Kirkpatrick, who left in 1823 to take charge of the Law Life as Actuary. The Court Minutes of the Atlas for 19 June 1823 state that Kirkpatrick was responsible in 1816 for the calculation of a table of premiums for whole-life assurances by limited payments, a class which had since been taken up by the Equitable and several other offices. Charles Ansell, F.R.S., who had been a clerk in the Atlas from 1808 to 1815, was reappointed Life Clerk in 1823 and became their first Actuary in 1824.

The Pelican did not use the title of Actuary for some 50 years. The Secretary appointed in 1841, Robert Tucker, afterwards took the title of Actuary by which he was known when he died in 1875. He was one of the first Secretaries of the Institute.

THE BEGINNINGS OF THE ACTUARIAL PROFESSION

The preceding section has traced five (possibly six) instances of the use of the title of actuary by offices before 1819, when professional actuaries were first mentioned in a statute; but these five were about one-quarter only of the total number of offices which were then transacting life assurance business. Thus *actuary* can scarcely be said to have acquired its professional meaning.

The marks of professional life might be taken as being (1) a common technique or skill in a branch of learning, (2) provision for training in that technique or skill and (3) some measure of public recognition. Before the analysis of

the use of the name of actuary is continued it may be helpful to glance at the way in which actuarial science was advanced by the publication of standard works.

There were several books on annuities in the eighteenth century, but the first major work on actuarial science in general was Richard Price's *Observations on reversionary payments*. . . . There were four editions in Price's lifetime, published in 1771, 1772, 1777 and 1783, and three later editions edited by William Morgan, published in 1792, 1803 and 1812. The number of editions is sufficient evidence of the extent of the influence of this book. Less influential, because narrower in scope, was William Morgan's *The Doctrine of Annuities and Assurances on Lives and Survivorships*, published in 1779, 2nd ed. 1821. Actuarial technique was developed and codified by two great books, Francis Baily's *Doctrine*, published in 1813, and Joshua Milne's *Treatise*, published in 1815; they remained standard reading for the young actuary for very many years.

The character of each of these books is indicated by the title. Richard Price loved the word *Observations*, and the word aptly describes his discursive treatment of his subject. The work is akin to a collection of essays. Francis Baily's *Doctrine* is a general survey which is more closely knit and more mathematical than Price's book. Joshua Milne's *Treatise* provides a close analysis of experience and a mathematical development of the subject which seems typical of the actuary's approach to his science.

It will be seen that these published works provided a sound training for the recruit to the profession in these formative years, and only public recognition was needed to set its seal on the profession. Public recognition came with the Act of 1819, which is referred to in the next section, and with the creation of the post of Actuary to the National Debt Office in 1821, the first actuarial appointment in Government service. This Government office had been established in 1786 to operate the sinking fund (which had been advocated by Price) and had begun the sale of life annuities in 1808. John Finlaison, the first President of the Institute of Actuaries, was Actuary to the National Debt Office 1822-51.

From the 1820's onwards the title of Actuary seems to be the normal choice by English offices. Thus the deed of settlement of the Imperial in 1820 provided:

That the principal officers of the Company shall always consist of sixteen directors, three auditors, seven trustees, and one actuary.

The following list contains some well-known names:

Name	Official title and years of appointment	Office
John Grey	Actuary, 1820-26	Imperial
Samuel Ingall (appointed Assistant Clerk in 1820)	Actuary, 1826-67	Imperial
Griffith Davies, F.R.S.	Consulting Actuary, 1822-24 Actuary, 1824-54	Guardian
George Kirkpatrick	Actuary, 1823-	Law Life
John Naylor	Actuary, 1823-*	Economic
J. J. Downes	Actuary, 1832-62	Economic

* There is some doubt about the date of Naylor's resignation. Walford says 1827, but there is evidence that Naylor was actuary in 1830.

Name	Official title and years of appointment	Office
Charles Ansell, F.R.S. (appointed Life Clerk in 1823)	Actuary, 1824-64	Atlas
George Farren	Resident Director, 1824-	Asylum
Benjamin Gompertz, F.R.S.	Actuary, 1824-47	Alliance
William Lewin Newman	Actuary and Secretary, 1824-56	Yorkshire
Joseph Pinckard	Resident Secretary and Actuary, 1824-39	Clerical, Medical
J. M. Rainbow*	Actuary, 1825-53	Crown
Charles M. Willich (used title of Actuary from 1835)	Secretary, 1825-65	University

* It seems probable that this was the Joseph M. Rainbow who was a clerk in the London Life from 1817 to 1821; his father, Joseph Rainbow, had been a clerk in that office from its foundation in 1806 and was Cashier and Accountant, 1821-47.

There is evidence that the Actuary was becoming differentiated from the Secretary. For example, W. L. Newman's appointment was minuted as *Secretary* and he used that title when writing about agency matters, but he more often used the joint title and mostly put the *Actuary* before the *Secretary*. He, his son and grandson successively held the office of Actuary and their period of service spanned 100 years.

These examples are taken from offices which were established in the years 1820-25 or which first used the title of Actuary in that period. They may be compared with the list of offices, arranged in the order of the years in which they commenced to transact life assurance business, that is given by Hartley Withers in *Pioneers of Life Assurance*. Of the English offices from this period there were some two or three only which did not use the title of actuary.

Neither the Scottish Widows nor any of the five Scottish offices which were formed or began to transact life assurance business in the years 1823-26 seems to have used the title of actuary until later. The chief official was called the Manager, and this no doubt partly accounts for the fact that the Scottish association formed in 1834 was an association of managers rather than of actuaries. Possibly it was felt that in Scotland, the Savings Bank actuary had established a prior claim to the title of actuary.

The picture which emerges from this analysis is more detailed than the one presented by G. H. Recknell in *The Actuaries' Club, 1848-1948*, but it is substantially the same picture. It is interesting to read his book again in the light of the additional information given here.

The actuarial profession is probably exceptional in that the profession had begun to crystallize in a definite shape before the name of actuary had become firmly attached to its members. The formative period of the profession can reasonably be dated to the first quarter of the nineteenth century. The evidence suggests that in England the name of actuary became customary for members of the profession approximately in the period between the Act of 1819 and the Parliamentary Committees of 1825 and 1827.

ACTUARIES AND FRIENDLY SOCIETIES

Fresh illumination of the subject can be gained through a study of the actuarial profession in relation to friendly societies. Richard Price, D.D., F.R.S., at the desire of a Parliamentary Committee, prepared tables of

contributions based on sickness and other experiences for a Bill of 1789, thus acting in effect as a consulting actuary. The Bill did not become law, but an Act was passed in 1793 for the protection and encouragement of friendly societies, and other Acts followed at short intervals. The Act of 1793 provided that the rules of every friendly society were to be sanctioned by the Justices at quarter sessions. However, neither Counsel nor Justices had the means of judging the sufficiency of the contributions—save by reference to Dr Price's tables.

In the years 1817-18 a Parliamentary Committee on the Poor Laws sought advice of an actuarial character from William Morgan, Actuary, and Francis Baily, Member of the Stock Exchange. In the light of this it is significant that a Bill of 1818 provided that the tables of payments or benefits of friendly societies should be first submitted to a committee of five persons, to be appointed by the Treasury, of whom at least two would be 'professional actuaries or persons skilled in arithmetical calculations'; the Bill also provided for the remuneration of the professional members. Appointment by the Treasury was a neat solution of the difficult problem of defining who was an actuary.

The Treasury may not have welcomed the responsibility because when the Bill became law in the Act of 1819, section 2 read:

Such Justices shall not confirm and allow any tables of payments or benefits, or any rules dependent upon or connected with the calculation thereof, until it shall have been made appear to such Justices, that the said tables and rules are such as have been approved by two persons at the least, known to be professional actuaries or persons skilled in calculation, as fit and proper, according to the most correct calculation of which the nature of the case will admit.

Thus the Act, in contrast to the Bill, left open the question who were professional actuaries or persons skilled in calculation.

By the ordinary rules of legal construction the word 'or' would introduce not an alternative but an alternative definition of the same thing. It may be deduced that the legal draftsmen felt that the word *actuary* was not sufficiently clearly defined to stand by itself. The Justices, however, seem to have interpreted the phrase as a true alternative! A Committee of 1825, which was investigating the working of the Act of 1819, called for the names of the persons on whose opinions friendly society tables had been sanctioned by the Justices, and the Committee found that

the Bench have been satisfied with the signature of petty schoolmasters and accountants whose opinion upon the probability of sickness, and the duration of life, is not to be depended upon.

The Committee considered a suggestion that the Justices should be required to nominate two persons for each county for the certification of tables, but the Committee were of the opinion that the object might be more effectively accomplished by providing for nomination 'by some authority not local, but extending over the whole of England'.

The Committee did not attempt to give a definition of an actuary but approached the problem in another way by the collection and publication of a mass of statistical information with a view to the formation of accurate tables.

Presumably, the difficulty of definition led to the dropping of the requirement of approval by two actuaries and its replacement in the Act of 1829 by

the colourless phrase 'may be adopted with safety to all parties concerned'. The condition of actuarial approval was restored in the Act of 1846 by which time the designation of actuary had become better established.

Names of witnesses in 1825 who were professional actuaries:

John Finlaison
William Frend
George Glenny
Joshua Milne
William Morgan

George Glenny was described as being 'not attached'.
Finlaison, Milne and Morgan also gave evidence in 1827.

Names of other witnesses in 1827 who were professional actuaries:

John Digges Bailey
Griffith Davies
Benjamin Gompertz
John Naylor
John Pensam
Ralph Watson (probably an actuary)

Francis Baily and Charles Babbage also gave evidence.

THE SAVINGS BANK ACTUARY

The title of actuary is used by savings banks as an official designation, not in a professional sense. How the title came to be used is not known though it is interesting to attempt to trace its origins.

The modern savings bank movement started in 1810 with the formation of the Parish Bank Friendly Society of Ruthwell in Dumfriesshire. By 1817, when the first English Act for the encouragement of savings banks was passed, there were seventy in England, four in Wales and four in Ireland. The Caisse d'Epargne de Paris opened in 1818. The title of actuary seems to have come into use in the very early days of the movement. The Savings Bank Act of 1824 required certificates of transfer to be attested by the Secretary or Actuary of the Savings Bank. References to the Actuary are also contained in the later Acts of 1828, 1844 and 1863. By 1844 the use of 'Secretary' seems to have been abandoned, for the Act says 'Actuary or other officer'.

In England, the savings bank movement developed just a little later than life assurance business. The name of actuary was becoming familiar from its use by life assurance offices and possibly also from the association of actuaries with friendly societies as professional advisers. The savings banks may have felt that the same designation of actuary was suitable for the savings bank movement. More probably, however, the word was taken simply as a synonym for secretary which seemed especially appropriate for a financial business, before the specialized application of the word had become clearly defined.

CONCLUDING SUMMARY

Perhaps the most striking feature of this analysis of the use of the name of actuary is the rapid growth of the profession in the 1820's. Many examples could be cited to show how quickly the name established itself. For example, the draft petition of 1837 (see p. xix of Introduction to *A series of tables of annuities and assurances calculated from a new rate of mortality among assured lives*, by Jenkin Jones, 1843) bore the names of forty-two persons, nearly all of whom were actuaries, and only five of them bore other titles. Sufficient evidence has been produced, it is thought, to support the generalizations:

(1) That the reasons for the adoption of the title of actuary lay in the character and interests of Edward Rowe Mores, who introduced it in 1762 for the secretary of a life office.

(2) That for some 50 years after the introduction of the title of actuary it was used as a synonym for secretary when applied to the specialized business of life assurance.

(3) That the professional meaning of actuary can reasonably be dated to, say, the years 1819-25.

(4) That the name of actuary became attached to the profession principally because of the achievements of William Morgan, who bore that title and who may be justly regarded as the father of the profession.

These findings make it painful to mention that in 1828, when he was an old man, Morgan wrote:

It is not easy to account for this affected appellation, nor for the practice which has lately prevailed of appropriating it exclusively to the secretaries of life assurance societies; with the exception of the new office of actuary to the national debt, which, however, from its peculiar duties, may possibly require a peculiar denomination.

The sneer was unworthy of him, but in extenuation it should be remembered that he had just passed through much criticism from younger men. As so often happens, the shaft missed its mark, for it may well be felt that it is the special character of the duties of the profession that does indeed demand a distinctive and peculiar name.

A happier ending to this note is provided by a quotation from a letter to *The Times*, written in 1818 by Thomas Bignold.

Happily, Mr Morgan is still living, and in full enjoyment of those great talents, through the service of which such lasting benefits have been conferred on the community.

Some of the information in this note has been taken from the published histories of the various offices, but much of it has been supplied by friends and colleagues in other offices, whose help is gratefully acknowledged.