

The Social Basis and Changing Fortunes of an Early Scientific Institution: An Analysis of the Membership of the Royal Society, 1660-1685

Author(s): Michael Hunter

Source: *Notes and Records of the Royal Society of London*, Jul., 1976, Vol. 31, No. 1 (Jul., 1976), pp. 9-114

Published by: Royal Society

Stable URL: <https://www.jstor.org/stable/531552>

#### REFERENCES

Linked references are available on JSTOR for this article:

[https://www.jstor.org/stable/531552?seq=1&cid=pdf-reference#references\\_tab\\_contents](https://www.jstor.org/stable/531552?seq=1&cid=pdf-reference#references_tab_contents)

You may need to log in to JSTOR to access the linked references.

---

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



Royal Society is collaborating with JSTOR to digitize, preserve and extend access to *Notes and Records of the Royal Society of London*

JSTOR

THE SOCIAL BASIS AND CHANGING FORTUNES OF AN  
EARLY SCIENTIFIC INSTITUTION: AN ANALYSIS OF THE  
MEMBERSHIP OF THE ROYAL SOCIETY, 1660–1685

By MICHAEL HUNTER  
*Research Fellow, Department of History,  
University of Reading*

	<i>Page</i>
I The Fellows and their Support . . . . .	9
II The Society's Changing Fortunes . . . . .	23
III The Society's Social Basis . . . . .	32
Appendix I	
1 Biographical information about Fellows . . . . .	42
2 Election, admission and the printed lists of Fellows . . . . .	44
3 Office-holders and Council members . . . . .	46
4 Activity at meetings and the evidence of the minutes . . . . .	47
5 The account books and Fellows' financial contributions . . . . .	49
6 The Society's evaluative lists of Fellows . . . . .	51
7 The expulsions . . . . .	54
8 Foreign and absent members . . . . .	57
Appendix II: The Plan for a College, 1667–1668 . . . . .	60
Abbreviations . . . . .	62
Notes . . . . .	63
Catalogue of Fellows, 1660–1685 . . . . .	77

## I. THE FELLOWS AND THEIR SUPPORT

AMONG seventeenth-century scientific groups, the Royal Society was remarkable for its formal organization and its large size. In contrast to the earlier, more casual scientific conclaves that preceded it in England, the Royal Society was a legally incorporated institution, established by Royal Charter, served by elected officers and with a fixed membership, proposed and elected, which was advertised annually on printed lists. On the other hand, as contemporaries noted, in contrast to the equally 'established' Académie des

Sciences founded in Paris in 1666, which was served by a small group of scientific research-workers funded by the government, the Royal Society was an almost entirely amateur body, 'a great assembly of Gentlemen' (1), drawn from various occupational backgrounds. The membership totalled 131 in 1663, rising to 228 by 1669 (2), and the large size and finite nature of the list of Fellows elected to the Society in its early years have assured it attention from historians in a statistically-minded age. In recent years more than one writer has used it in an attempt to illustrate by quantitative means 'the psychological and sociological origins of modern science'.

In *The Scientific Intellectual* (1963), L. S. Feuer analysed the 'Original Fellows' of the Society—those elected before the second charter of 1663—to draw the conclusion that the early membership was predominantly Royalist and sympathetic to what he called a 'hedonist-libertarian ethic' (3). More recently, in an article in *Past and Present*, Lotte Mulligan has investigated the religious and political affiliations of all the Fellows who were over 16 in 1642. She found that the majority were Royalist, Anglican, university-educated gentlemen, and that there was little evidence in the Society for the middle-class, unacademic types with Puritan and parliamentary associations that would be predicted according to theories propounded by various twentieth-century writers of the link between Puritans, artisans and the rise of science in seventeenth-century England (4).

Such studies, however suggestive their conclusions, are unfortunately open to the objection that neither of them adequately resolves the question of what kind of sample the membership of the Royal Society provides. Though it is generally accepted that the Society comprised some sort of élite of Restoration science, the precise relationship that it bore to the contemporary English scientific community is far from clear. Dr Mulligan rightly points out that not all those interested in science at the time became Fellows (5), but she deals less satisfactorily with the reasons that prompted some scientific enthusiasts to join while others did not, and with the extent to which membership could be due to motives that had nothing at all to do with an interest in science. Yet such questions are clearly crucial to the validity of conclusions derived from the list of members, for there is otherwise a serious danger of respecting quantitative conclusions more because they are quantitative than because they are based on meaningful data, and they must be briefly reviewed here.

Certainly, the Society proudly boasted its 'comprehensive temper' in which there was a place for all interested in the new philosophy whatever their status, profession or religious views (6), and it is now clear that no potential members were excluded on doctrinaire political or religious grounds (7). Fellows ranged

from Parliamentarians like Thomas Blount (F186\*), a violent radical imprisoned at the Restoration, to extreme Royalists like Sir Winston Churchill (F178), the author of a sort of historical panegyric of Stuart kingship. In terms of religion they ranged from 'Puritans' like John Wallis (F57) through staunch Anglicans like John Evelyn (F38) to Catholics like Sir Kenelm Digby (F24). Indeed, the Society clearly valued the membership of all sorts of different people for the evidence it gave of the width of support for the new science.

The fact that the Society did not exclude people on doctrinaire grounds does not prove, however, that membership was equally open to all. For it is important to consider the extent to which less formal and even accidental factors limited recruitment to its ranks, factors which are none the less important in assessing the relationship between the Society's membership and the whole range of scientific enthusiasm in late Stuart England.

Perhaps most important is the extent to which the Society was based on London. Though hardly any important scientist of the Restoration period did not have at least a nominal association with the Society (8), it is clear that it was never central to the scientific activities of those based on Oxford, Cambridge or the provinces rather than London. Indeed, there is occasional evidence for independent regional scientific groups, like the Towneley circle in Lancashire, which carried on its own experiments and observations in the North-West and was only incidentally in touch with the Royal Society (9).

For more minor provincial enthusiasts, membership of the Royal Society was a rarity and not all were even associated with it. The correspondence of the Secretary, Henry Oldenburg, with rural virtuosi like Samuel Colepresse in Devonshire, Nathaniel Fairfax in Suffolk or Peter Nelson in Durham, provides glimpses of a widely scattered interest in the new philosophy. But these isolated figures, though gratified by correspondence with the Society's Secretary, were hardly ever awarded the accolade of membership of the Society itself. Moreover, Oldenburg was in touch with only a few of the scientific devotees in the counties, and the local contacts of Fellows like John Ray or John Aubrey show an even wider circle of curiosity about science for which the Royal Society was a symbol, but which it had little to do with (10).

There were various reasons why a few such virtuosi became Fellows while most did not. Some, like John Beale (F128) and Joseph Glanvill (F175), were elected because of their assiduity in forwarding the cause of the new philosophy; others apparently because their claims to membership were especially propounded by their friends, as with Francis Potter (F130) and his admirer and

\* Numbers preceded by 'F' cited throughout this paper refer to entries in the Catalogue.

proposer, John Aubrey (11). In general, however, what was apparently most important in deciding whether such men joined the Society was whether or not they were frequently in London. It does not seem coincidental, for instance, that of Martin Lister's virtuoso acquaintances in Yorkshire, the only one to be elected F.R.S. was Sir John Brooke (F99), who was evidently frequently in London, commuting between the capital and his home at intervals through the year like the majority of the Society's Fellows: for from 1667 onwards there was a lengthy intermission in meetings each summer while 'the greater part of polite society goes to the country for the long vacation' (12). Other friends of Lister, however, like Francis Jessopp of Sheffield, never attempted to join although they corresponded with the Society, evidently not least because they were never in London—Jessopp admitted in 1674 that he had not been there for twelve or thirteen years (13). Truly 'provincial' Fellows were always very rare (14).

On the whole, therefore, the membership of the Royal Society was more representative of the audience for science in London than in England as a whole. But even in the metropolis the Society failed to include all those devoted to the new philosophy. In particular, despite its proud claim to a 'comprehensive temper', the Society apparently tended to be less socially inclusive than it liked to think itself, for it seems, in Mrs 'Espinasse's apt phrase, 'to have been open to all classes rather in the same way as the law-courts and the Ritz' (15). London mathematical practitioners who were closely associated with the Society but never became Fellows included teachers like Thomas Streete and Henry Bond (who was on one of the Society's committees in 1662) and instrument makers like Ralph Greatorix and Anthony Thompson, who had been a member of the formative group that preceded the Society's foundation (16): indeed, there is only one dubious possibility of an F.R.S. being a member of this class in the whole period 1660 to 1685 (17). A similar case is that of John Conyers, an apothecary. Conyers was an enthusiastic amateur whose collection formed the partial basis of Sloane's museum and whose surviving papers show a wide curiosity on natural and antiquarian topics, but he was never a Fellow, although occasionally present at the Society's meetings (18).

If some such gaps in the Society's ranks can be explained on social grounds, however, others cannot. For many well-connected virtuosi never joined, including several who were associated with the Society and some who were even proposed for membership. One curious figure is Silas Taylor alias Domville, a minor office-holder with scientific and antiquarian interests. Taylor contributed to the Society's business at several meetings and promised £10 towards the cost of its abortive college in 1668, but he never became a

Fellow (19). Equally interesting, a committee that evidently met in 1664 to consider a proposal concerning perpetual motion included not only such F.R.S.s as William, Viscount Brouncker (F1), John Wilkins (F6), Christopher Wren (F12) and Seth Ward (F29), but also Sir Matthew Hale, an eminent lawyer who wrote various books on scientific topics which show his keen interest in contemporary developments in the subject, and Sir Edward Ford, the Royalist inventor, neither of whom ever attempted to join (20).

Other inventors who were never F.R.S.s included Edward Somerset, Marquis of Worcester, despite his connexions with the Court and therefore with many prominent Fellows, and Samuel Morland, although Henry Oldenburg showed considerable interest in his work in the 1670s (21). Among virtuosi who never joined was William Courten or Charleton, a keen naturalist who set up a widely admired museum in London in 1684 and whose surviving notes show his scientific interests as early as 1663, who was proposed for membership but not elected in 1684 (22). Another was Lord Keeper Guildford, cited by Macaulay to illustrate the widespread fashion for science in Restoration England (23), who resisted pressure to become a Fellow since he 'could not discover what advantage of knowledge could come to him that way which he could not arrive at otherwise' (24). Similarly, many London physicians who might have been expected to join never did, including several with well-evidenced scientific leanings, and even two, Sir John Colladon and William Briggs, who were actually proposed for membership but not elected (25).

If the Royal Society failed to include many with scientific interests who might have been expected to join, it has conversely long been a commonplace that its ranks were swollen by many whose membership is no proof of any real concern with the new philosophy. To some extent this was abetted by the Society itself, anxious to enroll the support of the eminent and titled in order to achieve greater respectability. Members of the aristocracy were positively encouraged to join, and Privy Councillors and those above the rank of Baron were admitted without scrutiny: when the Earl of Argyle was proposed, for instance, he was 'by reason of his quality, chosen the same day unanimously' (26). The King, the Duke of York and Prince Rupert all subscribed their names in 1665, and by 1668 the Society could boast among its members not only royalty but elder statesmen like Albemarle and Clarendon, government ministers including the Lord Great Chamberlain, the Lord Chamberlain and the Lord Privy Seal, numerous members of the aristocracy and the bishops of the most important dioceses in the country.

Clearly the Society valued these recruits as much for their eminence as their enthusiasm, and the presence of their names on the Society's printed lists gave

welcome evidence of the establishment's espousal of the new science. Indeed, these sheets seem to have been deliberately used as propaganda on the Society's behalf. Oldenburg sent out these with his letters as well as recent books and copies of the *Philosophical Transactions* (27), and his country correspondents wrote with gratifying pleasure at having 'seen the List of your Illustrious Society' (28), while some foreigners were still more fulsome. As one wrote, 'Like a second Apollo the King himself presides as supreme moderator and governor of this band of stars, among whom are to be found the sons of kings, princes, dukes, magnates, landowners, counts, barons, great patrons of learned men, and a host of men of all orders distinguished for their learning and wisdom' (29).

The effect of this recruitment of the eminent was to give membership a certain social *éclat*. Even a scientist like William Musgrave, secretary of the Oxford Philosophical Society, found his election to the Society in 1684 'so great an honour to me, that I cannot value it enough: I am hereby made one of the same body with the most learned men of these times; (I may add) with severall of the nobility; with Princes' (30). In the case of those less dedicated to the new philosophy, membership was often proof rather of fashion than of a serious commitment to science, particularly in the 1660s. Though it is not easy to prove a lack of interest in science at this period, the tendency of works like the *Dictionary of National Biography* to cite membership of the Society as evidence of the intellectual interests of figures about whom information is otherwise scanty is certainly misguided, for people were clearly often elected for social rather than scholarly reasons.

Natural philosophy evidently became a rather superficial courtly fashion in the 1660s—while the royal entourage was at Salisbury during the plague in 1665, for instance, evenings were whiled away with lectures by Sir William Petty and others 'upon something that nobody understands but themselves', as one courtier put it (31)—and membership of the Society undoubtedly reflected this somewhat mindless craze. Fellows were said to come to meetings 'only as to a Play to amuse themselves for an hour or so' (32), and a contemporary criticized the virtuosi for 'so readily admitting all persons into their Society, who will pay the Duties of the house, though they know not the terms of Philosophy' (33). Indeed, one modern writer has gone to the extreme of seeing in the early Royal Society 'not the conscious centre of all genuinely scientific endeavour, but something much more like a gentlemen's club' (34), and this evaluation is echoed by the most sophisticated analysis yet published of a minor member's likely motives in seeking election (35).

There are also cases where the only apparent reason for joining seems to



have been a candidate's connexions with others who were already Fellows. Caution is needed here, for in an age when the world of the establishment was small and family relationships and marriage alliances often merely duplicated existing communities of interest, there is a danger of mistaking connexions for causes. Genealogical links were assiduously collected by William Bulloch in his pioneering notes on the early Fellows and it would be wrong to assume too readily that these explain why the later of two men who were related to one another joined the Society, for in many cases a shared interest in science undoubtedly inspired them both to become Fellows. But it sometimes seems likely that men stood for election only because they were encouraged to do so by relations who already belonged, as with Richard Boyle (F41) and Charles, Viscount Dungarvan (F156), nephews of Robert Boyle, Thomas Rolt (F176), son-in-law of Thomas Coxe (on whose behalf he was proposed), and various members of the Howard family (FF267, 295, 296, 300). In other cases, personal contacts may explain membership, as when John Evelyn proposed Bullen Reymes (F233), his colleague as a Commissioner for Sick and Wounded Prisoners.

There are, therefore, serious difficulties about any statistical survey which takes the Fellowship of the Royal Society as a meaningful sample of the enthusiasm for science in Restoration England, due to both negative and positive distortions in the Society's composition. Analysis of the Fellowship cannot be claimed to illustrate adequately the social, political or religious affiliations of science at the time but only the social, political or religious affiliations of the supporters of the Royal Society, a rather different thing. Yet this is not to deny the value of the exercise, for it is arguable that, as the premier scientific institution of its age, a study of the members who contributed to its success is a distinct but almost more important project.

Here too, however, there are difficulties about a simplistic view of the membership which lays equal weight on each person who ever joined. It has long been clear that the support of many members was merely nominal—some even claimed when challenged 'that they had been drawn into the society contrary to their inclination' (36)—and it may justifiably be questioned whether these had any real significance to its development. Charles Webster has criticized Dr Mulligan's quantitative analysis of the Fellowship on these grounds, arguing that 'a balanced impression of the Royal Society is not obtained by giving equal weight to the 162 Fellows who had passed adolescence in 1642'. In fact, 'only a minority displayed distinctive scientific interests, and the chief impetus for research came from a small active nucleus of less than twenty members' (37).

It was this nucleus that directed the Society's activity and brought about



most of its scientific achievements, demonstrating experiments, reading papers, commenting on the work of others and organizing further research. It included such famous scientists as Robert Boyle (F2) and Sir Christopher Wren (F12), and others, less famous for their scientific attainments but deserving of more attention than they have hitherto received for their contribution to the Society's business, like Sir Robert Moray (F4) and Sir John Hoskins (F92). Dr Webster has analysed the nucleus of a dozen or so members in the Society's first two and a half years in his recent book, *The Great Instauration* (38), and a similar minute analysis could be made for each subsequent period in the Society's early history.

The fact that the progress of the Society's work owed most to a small group does not mean, however, that one should go to the opposite extreme of writing off all the others as irrelevant to its achievement. The boundaries of the central nucleus are imprecise, particularly if longer periods are studied, over which the assiduity even of the most active members fluctuated. Moreover, beyond this group of highly active figures there was a larger number of Fellows who played an important part in the Society's work in more limited episodes, who were slightly active over longer periods, or even who merely paid subscriptions and attended meetings without contributing very much to the business transacted. These Fellows cannot be ignored in any full study of the Society's early development. Obviously the Society's directors valued the occasional help of those who were not among the most active, and even the support of rank and file members made a great deal of difference to the Society in various ways.

The role of those Fellows who occasionally contributed to the Society's demonstrations and discussions will be self-evident to any who have examined the minutes of the Society's proceedings as published in the eighteenth century by Thomas Birch, and it hardly requires illustration here. The importance of the more minor supporters is less obvious, and it is therefore worth considering in some detail. For the fact that the Society was institutionalized and therefore different from the less formal scientific discussion groups of its day—notably through the continuity achieved by the provision of elected officers, paid officials, corporate funds and possessions and regular meetings—meant that the rank and file of members had an importance which they might otherwise have lacked, an importance which has hitherto perhaps been inadequately understood and which makes possible a genuinely 'sociological' approach to the sources of the Society's institutional life.

Perhaps the most notable function of the body of members was the financial support that they gave the Society, since during this period it was almost its only source of revenue. In the early 1660s it had been hoped that the King

would endow the Society and various schemes for providing it with a revenue were suggested to him, many of them realistically conceived to cost him as little as possible (39). But the King had more immediate drains on his resources, and though he made two minor grants to the Society, these benefited it little: a grant of fractions accruing from the Irish land settlement in 1663 proved abortive (40) while the subsequent gift of Chelsea College only led to nearly twenty years of frustrating and expensive legal wrangling before the Society was finally able to sell it back to the Crown for ready cash in 1682 (41). Instead, 'the society being not yet endowed with any revenue', as a dunning letter of 1669 explained (42), its finance was provided almost entirely by Fellows' contributions.

Every Fellow, when admitted, was liable to pay admission money, at first ten shillings, but raised to twenty in February 1661 and forty in September 1662 (this was for commoners: peers had to pay £5). Then as a Fellow he was expected (unless exempted by order of the Council) to pay a subscription of one shilling per week, amounting to £2-12-0 per annum. Beyond this, Fellows were occasionally encouraged to make further contributions towards particular costs: in 1664, for instance, members were asked to subscribe for a 'recompence' to Walter Charleton 'for the care and pains, which the doctor was willing to take in anatomical administrations' (43), and in 1672-1673 Nehemiah Grew was supported as Curator of the Anatomy of Plants to the Society by extra subscriptions from various Fellows amounting to £50 per annum. Moreover, some of those approached in the latter connexion are named in a letter from Grew to Oldenburg, including at least two, Sir Kingsmill Lucy (F268) and Thomas Barrington (F279), who might otherwise have seemed rather marginal to the Society (44).

For in making such contributions even Fellows whose practical concern with experimental philosophy was small could assist. Thomas Sprat, in the *History* that he wrote at the Society's behest, explained how those 'whose employments will not give them leave to promote these *Studies*, with their own *Hands*' could 'Contribute joyntly towards the *Charge*', as well as 'pass judgment on what others shall try', and thus 'appear to be well-nigh as useful, as those that *Labor*, to the end of this *Enterprize*' (45). Similarly, the author of some 'Proposals for the Advancement of the Royal Society' noted that even if members attended rarely and never thought of 'Promoting the Ends of the Institution', 'yet if they pay their Contributions which by their subscriptions they are unavoidably obliged to do, they take themselves to be (and indeed in Respect of those who scandalously refuse payment are) good Members' (46). Indeed in 1684 Sir William Petty instructed the newly-founded Dublin Philosophical

Society not to ‘pester’ themselves with ‘useless or troublesome members’ ‘for the lucre of their pecuniary contribution’, doubtless with the Royal Society’s example in mind (47).

Finance was crucial to the Society’s success, for the ambitious programme to which it was committed was bound to prove expensive, on a scale, indeed, for which ‘the estates of a few men cannot in probability be suppos’d adequate’ (48). The actual running costs give some idea of the kind of financial outlay involved. Experiments, ‘in the vigorous prosecution whereof consists the life and honor of this Royal Institution’, as a dunning letter put it (49), often required quite costly equipment, sometimes running into tens of pounds (50). Another expense was that of ‘defraying the Postage of forraigne Correspondance’ (51), and still more crucial was the provision of funds to pay the few professional scientists employed by the Society, who did more for the advancement of its work than anyone else. Robert Hooke was employed as Curator of Experiments from 1662 onwards, jointly with his tenure of the lectureship established for him by Sir John Cutler (52). Henry Oldenburg received a small salary from the Society, which he supplemented with proceeds from the sale of the *Philosophical Transactions* and from other sources (53). Nehemiah Grew received payments in the 1670s, as we have seen, and wages also had to be provided for the more transient and menial operators and clerks whom the Society employed (54).

All this could just be accommodated within the rather small budget at the Society’s disposal. There are numerous and suggestive hints, however, of what it might have achieved had it ever had more profuse financial assistance, including a paper drawn up by Oldenburg in the 1670s which envisaged the employment of extra professional staff and assistants (55). In the event, the financial contributions of Fellows were always rather disappointing—it is easy to understand the almost frantic tone of the letters requesting payment of arrears that the Society sent out at frequent intervals (56)—and this cramped the Society’s style. As Oldenburg complained of Joseph Glanvill’s panegyric of the Society in his *Scepsis Scientifica* (1665), ‘I feare, the great expectation, he raiseth of their Enterprise, may be of more prejudice, than advantage to them, if they be not competently endowed with a revenue, to carry on their Undertakings’ (57), and it was Mr Bluhm’s view that ‘the full establishment of Curators and Operators never functioned properly because there was never enough money to support them in their intended role’ (58). Indeed, the decline of experiments that characterizes the Society’s early development was apparently due not least to the lack of funds to pay for them—so that the rank and file of members who were recalcitrant in paying their dues played an important

negative role in the Society's evolution. None the less, such money as there was came from the Fellows.

Hardly less important than finance among the functions of minor members was attendance. This was most important in constitutional terms—another symptom of the needs created by the Society's institutionalization—since the statutes laid down the minimum attendance required for elections to be valid. For the anniversary meetings held annually on or about St Andrew's Day, when the Officers and Council were elected for the forthcoming year, the quorum fixed by the second Charter of 1663 was thirty-one (59), and the Society's Officers showed themselves concerned to guarantee this even when they were otherwise eager to slough off peripheral members (60). The attendance figures are frequently recorded (see Table 4), and they show that the number present on these occasions was usually well above this; in fact, it fell below it only once in the seventeenth century, and that, perhaps not surprisingly, was in November 1688 (61). For other meetings at which new Fellows were elected, Council vacancies filled during the year or changes made to the statutes, the necessary quorum was twenty-one (62). The number present on such occasions is sometimes recorded in the minutes and it ranges from twenty-one to thirty-one, while it may sometimes have been larger still (63).

For ordinary meetings fewer needed to attend, and on various occasions there were insufficient Fellows for an election to take place although a meeting was held (64). Some notion of quorum still seems to have applied, however, since if too few members turned up for a meeting none was held, and the Society's minutes reveal many days on which no meeting was held because so few Fellows were there, from 1663 onwards (65). Indeed, the habits of the generality of members soon established a seasonal pattern in the Society's proceedings, for from 1667 there were no meetings during the summer months, while polite society vacationed in the country (66). In the difficult years of the 1670s the reduced number of weekly meetings was one of the chief symptoms of decline, and it is easy to underestimate the role of those members who loyally continued their attendance, while others fell away, in ensuring the very survival of the Society.

Unfortunately, the evidence as to how many members had to be present for a meeting to be held is rather problematic, not least because this probably fluctuated at different times. Robert Hooke's *Diary*, which records how many were present at a few ordinary meetings in the 1670s, shows that on one occasion proceedings took place although a mere six Fellows were present (47). In general, however, attendance averaged twenty or over, and it seems likely that a dozen or so was usually felt to be a minimum quorum at this

time (68): whether this was markedly different from other periods is not known. What is more interesting is that Hooke sometimes also recorded the names of those present, and these, like similar evidence from other sources, indicate that the Fellows who attended such ordinary meetings were by no means limited to the central nucleus of the Society, while even the most active Fellows were naturally prevented by other commitments from attending some meetings (69). In fact, there was evidently a larger pool of members who attended with reasonable frequency to make up a quorum of interested listeners and thus contribute to make the Society's proceedings more official than a mere coffee-house conclave.

For the Society was always rightly alive to the danger of becoming a narrow clique, and it valued the presence of those who came to meetings, other than the relatively few who directed research, because of their role as critical onlookers. Sprat defended 'the largeness of their number' in his *History* on the grounds that there was a place for 'plain, diligent, and laborious observers: such, who, though they bring not much knowledg, yet bring their hands, and their eyes uncorrupted . . . and can honestly assist in the *examining* and *Registring* what the others represent to their view' (70).

Indeed, a preoccupation with getting an adequate number of Fellows to attend evidently influenced the Society's policy concerning meetings. Thus John Wallis, writing to Oldenburg in October 1674 about the best date to recommence activities after the summer recess (when he was to read his discourse on gravity), noted 'Thursday 29 instant, is the Lord Mayors shew; which will be a very improper day for us to begin our meetings, when probably we cannot expect much company' (71). And when Oldenburg requested Sir William Petty to supply an experimental discourse for the Society in 1675 he stressed the importance of attracting a large audience, both on constitutional grounds and in more general terms: 'Sir, the approach of our Anniversary Election makes us the more earnest in having our Assemblies well filled and pleased before the said day; to which end you are able to contribute much, if you please' (72).

Bound up with this question of quorum is a more important issue, that of the audience for science provided by the rank and file of the membership, and the effect of this on the scientific content of the Society's proceedings. Certainly, the Society seems to have visualized science very much as a performing art in its early years, deliberately seeking to have experiments demonstrated by paid employees like Hooke. The role of the non-participatory audience deserves attention in a detail that cannot be attempted here, but there can be no doubt that on occasion the Society devoted an unnecessary amount of time

to scientifically unproductive experiments and discussions of subjects of wide popular interest (73). There is even some evidence that the tendency of the Society to change from a research foundation to a discussion club in its early years (and hence to deal with subjects more susceptible to the latter treatment than the former) can be associated with the type of members who attended meetings (74).

Finance and attendance were the most important functions of members apart from actual contributions to the Society's scientific work, but Fellows could also prove of assistance in more miscellaneous ways, either by large scale munificence or small-scale services. Thus Sir Joseph Williamson was able to assist with postage on foreign letters by placing diplomatic channels at the Society's disposal, for instance (75); Daniel Colwall paid for a collection of rarities that formed the basis of the Society's museum in 1666; Henry Howard, later Duke of Norfolk, allowed the Society to use Arundel House for meetings when Gresham College was commandeered by the City after the Great Fire in 1666, and he also presented a valuable library (76); William Perry catalogued this and looked after the Society's other books (77); and the Society's legal advisers included Sir Anthony Morgan (F16), Andrew Ellis (F77) and Joseph Lane, who was exempted from subscriptions on the grounds that 'he would otherwise be ready to promote the design and good of the Society, and to be assistant to them in matters of law' (78).

Such functions may have been rather marginal in comparison with the scientific work of the most active part of the Society, but attendance and finance were certainly not, for both played an essential part in the Society's institutional life. It is therefore significant that in the critical years of the 1670s, when reform was imperative, the Society concerned itself not only with a small inner circle but with all those Fellows who were thought to have some interest in the Society and its work, illustrated by their occasional contributions to its business, their attendance or even their payment of subscriptions (which, since it was the Society's least subjective criterion of 'usefulness' among minor members, was that most frequently employed). It was in terms of these that the Council went through the total membership, trying to decide which members were 'useful' and which purely nominal and disposable, and compiling lists of the few dozen who could be defined as 'good paymasters' and as 'members that are likely to promote the dessein of the Royal Society' (79). The rest were, implicitly, irrelevant, and between 1675 and 1685 many of those who seemed most indifferent to the Society's business were expelled. The Society's enemies and friends agreed that the list of all those elected that it printed each year gave little indication of the real areas of support among



the membership and that there was a need to replace such '*false Catalogues*' with '*a true one of such men as do now frequent their meetings, keep correspondence with them, and pay the usual contribution*' (80). The expulsions gradually made the printed lists reflect this.

The expulsions and the evaluative lists of the 1670s, therefore, provide a valuable start for investigating the relative usefulness of different Fellows, and it was they that inspired the analytic Catalogue attached to this article. But they comprise only a part of the information that it incorporates. For the expulsions were made slowly, hesitantly and slightly inconsistently, reflecting the predictable embarrassment that the Society felt in taking so radical a step towards its members and evidently tempered by a whole range of more or less significant facts about the individuals in question. The evaluative lists vary slightly in their classification of Fellows, showing similar uncertainties and similar care for diverse considerations. Moreover both they and the expulsions are temporally limited, evaluating the usefulness of the Fellows in question only at the time when they were made and failing to differentiate, for instance, between members who had never attended a single meeting and those who had once been active but had since lost interest.

What the Catalogue does, therefore, is to collate the evidence of these with information from other sources in order to assess as fully as is retrospectively possible the usefulness throughout their career in the Society of each of the 426 Fellows elected between 1660 and 1685. The Fellows are listed in chronological order of election, and in addition to details concerning expulsion and status in the lists of the 1670s (where applicable), it gives the following information about each. First, offices held and membership of the Council (where applicable). Then, a brief evaluation of the member's activity at the Society's meetings and any fluctuations in this. Lastly, a summary of his regularity in paying subscriptions, as shown by the Society's account books. To this, I have added the date of each Fellow's birth and death (where known) and a brief note summarizing the leading features of his career, with an indication of the principal source used.

Some of this information is straightforward, but there are difficulties even about seemingly elementary facts, and in other cases the evidence available is very problematic. In a lengthy appendix I have therefore gone through the different categories of data used in detail, expounding the strengths and weaknesses of each, giving more precise detail about my usage in the Catalogue, and providing background material. Much of this section is rather technical, but it includes a discussion of such themes of wider interest as the motives underlying the Society's expulsion (or restraint from expulsion) of unwanted members,



the status of 'provincial' Fellows, and the extent to which the body of Fellows who provided the Society's financial support overlapped with the section of the membership most prominent in its research.

## II. THE SOCIETY'S CHANGING FORTUNES

The appendix should be read carefully and the limitations of the material employed in the Catalogue clearly understood before conclusions are drawn from it. It is inevitably as incomplete as the evidence on which it is based, and serious difficulties remain, such as that of assessing the attendance of relatively inarticulate members. None the less, it provides much more information than has been available hitherto about the activity in the Society of all but a handful of Fellows, indicating which only ever gave nominal support, which showed enthusiasm for a while but then dropped away, which paid subscriptions but contributed little at meetings, and which were consistently and regularly active. The rather dense factual matter that it contains may thus provide the basis for all kinds of conclusions about the Society's active support and its varieties, and I shall make a few such inferences here, though I hope that it will be more widely useful to scholars. In addition to this, a collation of the information about the activity of each Fellow with the brief biographical notes provided enables one to make some general deductions as to what sort of people tended to be more or less useful to the Society, and I shall end this paper with a few hesitant conclusions along these lines.

First, however, I intend to show how the Catalogue can clothe with personal detail the story of the Society's varying fortunes in its early years, illustrating how the activity of different Fellows fluctuated and declined, and thus improving on the somewhat impressionistic terms in which the story has been told before. I should point out, of course, that the Catalogue can only measure the level of different Fellows' activity and not its quality, to study which would mean writing the history of the Society's work rather than merely its institutional vicissitudes, which I have not attempted here, though alluding to it in passing. Here, I shall mainly concern myself with the extent of support for the Society at different stages in its first quarter-century.

Of all features of the Society's history in this period, perhaps the most striking is the wide enthusiasm for the new science for which it catered and by which it was fuelled in its earliest years, which was more marked than it ever was subsequently. Throughout the seventeenth century newly elected Fellows always tended to be active in the Society for a year or two but then to drift away again, while others at least paid their subscriptions regularly for a while.

In the period up to 1664, however, this tendency is especially marked. In these years, 80% of all English members elected showed at least a temporary interest in the Society's work. In the subsequent five years this fell to 57%, thereafter rising only marginally to 59% in the 1670s and 61% in the 1680s. Such statistics strikingly illustrate the widespread interest in the Society's work in its first years, which must have filled its protagonists with optimism about the prospects of their design.

Even within this period, however, the Catalogue shows how the zeal of those who had at first embraced the project began to wane. Numerous entries relate to Fellows who made a few payments to the Society in the period 1660–1663 and none thereafter. There are also several who made various contributions at meetings in the first four years but none afterwards, such as Nathaniel Henshaw (F51), Sir John Clayton (F88) or Edward Waterhouse (F147), while Sir James Long (F94) was intensely active in 1663 and hardly at all later. In some cases, as with John Winthrop (F98) or the Earl of Crawford and Lindsay (F137), this was due to the fact that the Fellow in question went abroad or to the country. In general, however, the truth is that the novelty evidently wore off; many who had originally joined out of curiosity became bored, while others found rival diversions to occupy themselves.

This makes it easy to understand the laments of Henry Oldenburg in his letters to Robert Boyle as early as 1664. 'I must needs say, we grow more remisse and carelesse, than I am willing to expatiate upon', he wrote, complaining how 'our meetings are very thin' and how the Society might prove a 'mighty and important Body' 'if all the members thereof could but be induced to contribute every one their part and talent for the growth, and health and wellfare of their owne body; which, me thinks, is one of the most reasonable things in the world, and consequently should be easy to be persuaded to those, that make profession of reason and vertu' (81). It is also interesting to find complaints about arrears of subscriptions and attempts to collect them at this time (82).

Matters were made worse by the dislocation caused by the plague in 1665, when the Society was forced to suspend its meetings for several months, and in the later 1660s more Fellows whose association had formerly been close had less to do with the Society and became less assiduous in paying their dues. Several members who had been among the most active before the plague hardly appear in the minutes thereafter, including Henry Slingsby (F14), John Graunt (F105) and Walter Charleton (F68), entirely inactive after 1668, while Christopher Merret (F17) was very active only until 1667 and disappears from the minutes after 1669 and William Ball (F9) was evidently little in

London and barely active after 1668. Such casualties entirely neutralize the case of William Neile (F126), more active in the late 1660s than earlier. They are echoed by the case-histories of numerous more minor Fellows, some of whom, like Henry Powle (F27), now failed to match their earlier slight activity, while many at least paid their subscriptions up to 1666 or 1668 but not subsequently, including Sir Robert Paston (F97), Sir Edward Bysshe (F122), Anthony Lowther (F133) and Sir Elisha Leighton (F154). The latter tendency is illustrated by the rising figure of the total arrears due, which was conscientiously noted each year: in 1666, £625-worth remained unpaid out of a total due of £866, and in 1668, £847 out of £1,102 (83).

This relative decline is again reflected in Oldenburg's letters to Boyle. Reporting the Society's plans for setting up a repository, observatory and laboratories in 1666, he complained how 'the paucity of the Undertakers is such, that it must needs stick, unlesse more come in, and putt their shoulders to the work', and later in the year he wrote 'I wish only, we has a litle more Zeale, and a great deal more assistance, to doe our work thoroughly' (84). He even expressed concern 'that so noble and usefull an institution may not fall to the ground, in an age, so full of knowledge and curiosity, and enjoying so considerable advantages to improve and increase the same' (85). Such worries about the Society evidently form the background to the project for 'establishing' it in 1667–1668, the abortive scheme for building a College dealt with in Appendix II, and to attempts to improve the quality of the Society's proceedings (86). Indeed, in 1668 Henri Justel in Paris heard reports that the Society 'no longer works seriously . . . that most of the members attend no longer, and that soon it will be quite dispersed' (87).

Such reports were alarmist. Despite the decline of interest among some of the Society's early Fellows, there were plenty of original members still active to keep the Society's proceedings lively. Moreover, at this period recruitment remained buoyant, averaging over twenty a year throughout the 1660s (see Table 1), which meant that new blood was taking the place of the languishing old, although the percentage who proved of no value was higher than in the early 1660s (88). Fellows elected at this time who took an active part in the Society's proceedings included Edmond King (F212), Henry Howard of Norfolk (F218), John Collins (F235), Thomas Allen (F253) and Edward Browne (F248).

Though the number of meetings held annually was slightly lower than it had been in the Society's earliest years (see Table 3), the continuing recruitment evidently kept up the size of the active membership. The Catalogue shows that forty-five members were active or fairly active in 1667–1668, while about

TABLE 1

*Elections per year  
(inc. re-elections)*

1660	35	1673	13
1661	62	1674	5
1662	27	1675	4
1663	39	1676	7
1664	25	1677	12
1665	24	1678	13
1666	17	1679	9
1667	27	1680	11
1668	25	1681	25
1669	10	1682	10
1670	2	1683	7
1671	5	1684	9
1672	7	1685	7

TABLE 2

*Total membership per year  
(from printed lists)*

1663	131	1676	
1664	148	1677	198
1665		1678	185
1666	173	1679	203
1667	204	1680	209
1668	219	1681	220
1669	228	1682	191
1670	221	1683	193
1671	223	1684	193
1672	216	1685	141
1673			
1674	219		
1675	204		

another sixty-five were slightly active or at least up-to-date with their subscriptions, thus providing a larger pool of support which was doubtless drawn upon by attendance at meetings. This is reflected in the numbers present on St Andrew's Day each year (see Table 4), which remained high throughout the 1660s, except for a lacuna in 1666, doubtless due to dislocation in the aftermath of the plague, reaching a peak in 1668.

TABLE 3

*Number of meetings  
per year*

1661	52	1674	23
1662	53	1675	36
1663	51	1676	27
1664	51	1677	29
1665	25	1678	38
1666	35	1679	35
1667	40	1680	34
1668	41	1681	32
1669	35	1682	39
1670	32	1683	39
1671	30	1684	37
1672	33	1685	38
1673	30		

TABLE 4

*Attendance at anniversary meetings  
(from minutes)*

1663	57-8	1676	
1664	53-4	1677	
Apr. 1666	46	1678	33
Nov. 1666	42	1679	? 31
1667	59	1680	
1668	60	1681	about 30
1669			
1670		1682	
1671	46	1683	43
1672		1684	39
1673	55	1685	37 or more
1674	42		
1675	50		

By the early 1670s, however, the decline that had only been a suspicion in the late 1660s was really under way. Most serious were the deaths of three of the chief activists of the Society at this time, John Wilkins (F6) in 1672, Sir Robert Moray (F4) in 1673 and Jonathan Goddard (F7) in 1675. 'I feare the Royal Society may stagger by the losse of such a proppe and incourager', Thomas Henshaw wrote to Oldenburg on Wilkins's death (89), and the death of such dominant personalities was 'a great blow' (90), far more important than any decline of interest among minor supporters. Indeed, in 1673 Henshaw was apprehensive because 'I doe not so much as heare whether the Royall Society bee living or no' (91). But even in 1671, before these deaths, John Beale thought that Oldenburg 'seemed to be in an agony for feare of an eclipse of the Royal Society' (92), and this was evidently due to the movement of Fellows, major and minor, away from it.

Several members who had been active in the 1660s almost entirely lost interest in the Society's proceedings after 1670. Sir George Ent (F31), for instance, previously among the most assiduous Fellows of all, now disappears from the minutes, as do such formerly active members as Peter Ball (F135) and such slightly active ones as Sir Gilbert Talbot (F71) or Sir James Hayes (F111). The reasons for this were doubtless manifold, though there is increasing evidence for once-active Fellows retiring to the country. William, Viscount Brereton (F32), who is hardly mentioned in the minutes after 1669 although frequently appearing there previously, had evidently retired to his Cheshire estates (the only references to him thereafter concern letters to him). Charles Howard (F123), formerly active, was little involved in the Society's proceedings after 1673, and he perhaps also retired to the country, while others who were less active than previously, such as Walter Pope (F72) and Sir Philip Skippon (F227) evidently fall into a similar category.

What made this worse was the fact that since 1669 there had been an almost total cessation of recruitment, so that no new blood was coming forward to fill the gaps left by death and absenteeism (see Table 1): only two Fellows were elected in 1670, both of them Foreign, and relatively few joined throughout the next few years. This striking demise in recruitment evidently says much about the Society's changing image at this time. It may have reflected the increasingly articulate hostility that it met, for the 1670s saw Henry Stubbe's outspoken attacks on the Society and its satirization in works like Shadwell's *The Virtuoso*. It is certainly interesting that Lord Keeper Guildford resisted encouragement to join, since he 'esteemed it a species of vanity for one, as he was, of a grave profession, to list himself of a society which at that time was made very free with by the ridiculers of the town' (93). But the Society had

been attacked since its earliest years (94), and it may now have ceased to attract as many new members as before merely because science was no longer the fashionable novelty that it had once been.

The result was a decline in the Society's numerical basis. The Catalogue shows only some ninety members showing any sign of activity in 1672, as against 117 before the plague, while the accounts for the same year have only sixty-nine Fellows less than three years in arrears. Evidently there was a growing casualness about the Society among its members, reflecting a general decline of interest and perhaps also the increasing popularity of such alternative centres of intellectual discussion as coffee-houses (95): the Catalogue contains a number of cases of Fellows whose level of activity was lower in the 1670s than it had been previously, such as William Erskine (F79) or Daniel Coxe (F189). Attendance, when recorded, now fell markedly. The numbers present at anniversary meetings dropped from the height reached in 1668 to as little as forty-two in 1674 (see Table 4), and at ordinary meetings attendance probably declined still more, for many were cancelled for want of sufficient numbers: Table 3 shows how few meetings there were at this time in comparison with the Society's earliest years or even with the late 1660s, and in 1674 four meetings were missed consecutively (96). Arrears, moreover, were worse than ever. The Catalogue has a striking number of Fellows who paid their subscriptions fairly regularly until about 1670 or 1672 but fell deeper and deeper into debt thereafter. The totals owed bear this out, with £1,154 unpaid out of a total of £1,696 due in 1671 and £1,818 out of £1,957 in 1672 (97).

This decline in attendance and subscriptions was matched by a lowering of the scientific quality of the Society's transactions, and the need for reform was intense. It was met by a sustained campaign in 1673–1675, presided over by one of the Society's stalwarts, Sir William Petty (F8). The detailed narrative of this episode can be traced in the minutes as published by Birch, which may be supplemented by the use of unpublished material in the Petty Papers at Bowood and the Domestic Manuscripts of the Royal Society, as Mr Lindsay Sharp has done in his thesis on Petty (98). In an attempt to revitalize the Society's proceedings, Fellows with serious scientific interests were invited to contribute experimental discourses at meetings, while those who felt unable to do so themselves were encouraged to subscribe for others to stand in for them. In connexion with the problem of arrears, all were requested to settle their debts and sign a new and legally obliging bond promising greater regularity in paying their dues in future. Those who refused either to do this or to contribute personally or by proxy to the Society's proceedings were to be encouraged to leave the Society. It was in connexion with this attempted



reform that the Council drew up the various evaluative lists of Fellows that have already been referred to.

For a while these measures had quite satisfactory results. Some sixty members signed the new bond by January 1675 (99), and the numerous appeals made for the payment of arrears met with considerable response, as is shown by the large number of Fellows who had fallen badly into debt who paid up at this stage, including the Earl of Kincardine (F3), Sir Christopher Wren (F12), Thomas Coxe, senior and junior (FF23, 151), Ralph Bathurst (F149), Thomas Neale (F165), Nicholas Bagenall (F172), the Earl of Dorset (F196) and Edward Howard (F267). There was also a noticeable improvement in the scientific quality of the Society's proceedings: several Fellows were prevailed upon to contribute lengthy papers, some of which were published, and three gave money to pay for others to read discourses on their behalf (100).

The improvement, however, was only temporary. The better quality of scientific proceedings achieved by the reforms soon evaporated, and in the later 1670s even some Fellows who had been regular in attendance and subscription until the early part of the decade fell away. Jaspar Needham (F82), who had always been regular in his subscriptions, resigned in 1674, and among those whom the Council included in their list of 'good paymasters' in 1673 but who lost interest within the next few years were Edward Chamberlayne (F271) and William Le Hunt (F254) (who, paradoxically, had been consulted concerning the wording of the bond about subscriptions). Another was George Smith (F120), who was also slightly active until the mid-1670s but not thereafter. Even members as assiduous as Sir John Hoskins (F92) and Sir Edmond King (F212) fell into arrears for the first time in the mid-1670s, and defaulters in terms of activity were equally notable: Henry Howard of Norfolk (F218) failed to match his earlier involvement with the Society after 1674, and Seth Ward (F29), who attended and contributed regularly up to 1675, was barely active after that date. Worse still, Henry Oldenburg (F33) died in 1677, and one result of the crisis in the affairs of the Society that followed was the almost total retirement of William, Viscount Brouncker (F1), earlier very active as President.

The general waning of support was reflected in attendance at St Andrew's Day meetings, which was even smaller in the late 1670s than previously: only thirty-three were there in 1678, and in 1679 the minutes darkly note that 'a sufficient number' were present (the minimum was thirty-one) (101). The number of meetings also remained relatively low, after a rise in 1675, as Table 3 shows. Moreover, the Catalogue reveals only eighty-two Fellows active in any way in 1680 as against ninety in 1672, and the accounts for that



year have a mere fifty-two with less than three years' arrears, a figure which includes several Fellows only very recently elected. There can be no doubt that the reforms of 1673–1675 had failed to stem the decline in the Society's fortunes.

The 1680s saw the continued demise of once active members, due not least to the fact that some were now becoming elderly. Sir Paul Neile (F5), for instance, who had been very active in the 1660s and fairly active in the 1670s, was entirely inactive after 1680, and so was Daniel Whistler (F49). Walter Needham (F230) now failed to match the interest he had shown during the 1670s, and the attendance of members like John Creed (F155) also flagged, as did the regularity in paying of such as John Pearson (F222).

In the 1680s, however, there was new blood to replace such casualties. To some extent this was due to the changed circumstances of members, as with William Aglionby (F240), a Fellow since 1667 but perhaps formerly abroad and only now involved with the Society's work, or Martin Lister (F288), previously only an assiduous correspondent, but active at meetings after his move to London in 1683. More important was the election in the late 1670s of a succession of active enthusiasts, Thomas Gale (F331), Robert Plot (F332), Francis Aston (F342), Detlev Clüver (F346), Edmond Halley (F347), Edward Tyson (F353), John Houghton (F361) and Frederic Slare (F369), an influx of talent which revived the active nucleus, previously only augmented by two recruits since the 1660s—Nehemiah Grew (F289) and Sir Jonas Moore (F313) (who had, however, died in 1679). This evidently accounts for a new attempt to improve the quality of scientific proceedings in 1679 (102) and a noticeable increase in the number of meetings from 1682 onwards (see Table 3).

Attendance on St Andrew's Day, however, matched this revival only to a more limited extent. There was an improvement on the disappointing number of 'about thirty' who attended in 1681 in the subsequent years, reaching a height of forty-three in 1683, but these figures at best only match those of the crisis-ridden early 1670s and never approached those of the 1660s (103). Indeed, it was in the early 1680s that the Royal Society was most in danger of becoming a narrow clique, with a new lease of life at its heart which was not matched by a general revival of attendance or contribution by the more peripheral Fellows. It was evidently the combination of this new vitality at the centre with a greater desperation than ever at the lack of enthusiasm of the bulk of members that inspired the Society's most intense campaign against arrears, that of 1681–1682 (104), which was followed by the mass expulsions of 1682 and 1685, when over sixty members were removed from the printed membership lists (105). These, the first (and last) substantial expulsions in the Society's history,

were symptomatic of the new vigour in its inner counsels, though they only emphasized the disparity between this and the indolence of the rank and file: indeed, the Society's earlier restraint from expulsions illustrated its weakness, for the need for them had been clear since the early 1670s, when the lists were drawn up showing how relatively small a part of the total membership was actually useful.

Recruitment remained low; only in 1681 did the number elected approach that of the 1660s, and apart from this it averaged under ten a year (see Table 1). This, however, was partly due to a new membership policy adopted by the Society in 1682. For in that year complaints were made that too many unsuitable people were being elected Fellow, 'few balloting in the negative, and presuming the person to be well known to the member, that proposeth the candidate' and to avoid this, the Council were ordered to consider 'whether the person is known to be so qualified, as in probability to be useful to the Society' before a candidate was allowed to be proposed for election (106). As a result, a newly high percentage of those elected showed at least some interest in the Society's work: with the exception of three scientists based on Oxford and Dublin, one provincial naturalist and an eminent peer, only two English Fellows elected in 1683–1685 proved entirely inactive, James Monson (F415) and Richard Beaumont (F416). The Society had evidently learnt the futility of accepting too easily those who stood for election, with the resulting accumulation of dead wood like that which they had so recently discarded.

The fact that the Society was more critical of those who stood for election does not mean, however, that it was responsible for the numerical reduction of its active membership. Obviously those who were entirely inactive were unwelcome, but an important place still remained for the rank and file whose reduced activity had been so marked a feature of the 1670s. Attendance was always encouraged in members other than the activists who dominated research and discussion, and the subscriptions of Fellows remained a valuable source of revenue: for although the Society was better endowed in the 1680s than previously, with sizeable investments in East India and African Company stock, the yield from these was never very reliable (107). In both functions, however, ordinary members continued to be disappointing: attendance on St Andrew's Day remained small in the later 1680s and 1690s (108), and the accounts for these years show numerous Fellows accumulating worse debts than ever. In fact, it is clear that the narrowing of the Society's active support—one of the most interesting features of its institutional evolution—resulted from a general waning of enthusiasm for the design among all but a cluster of dedicated virtuosi.

The Royal Society thus presented a somewhat mixed spectacle in the 1680s, a period that might be called 'the age of the societies' due to the inauguration of scientific groups in Oxford and Dublin and their attempted initiation at Cambridge, Aberdeen and St Andrew's (109)—groups which were deeply respectful of the Royal Society, having (in their own words) 'chiefly subsisted & grown up by the kind encouragement & countenance' of that body, 'the most worthy Society in the learned World' (110). The Society had survived the most dangerous period in its history, the early 1670s, when collapse seemed imminent. By the 1680s it was firmly established as part of London intellectual life, highly and widely esteemed both at home and abroad, and with meetings where in general important scientific discussions were held. But the active membership was smaller than ever, and the bulk of Fellows continued to disappoint the Society's directors.

It is therefore symptomatic that when, in 1698–1699, there was a new attempt at reform, it showed clearly that the Society had not grown out of the problems of the 1670s, the periodic need both to overhaul its intellectual machinery and to prod the rank and file of members into more regular attendance and subscription. As before, an attempt to extract promises of written papers was combined with an attack on arrears, and in the aftermath a few 'useless' Fellows were removed from the printed lists (111). This takes us into the eighteenth century, when, as is well known, the Society continued to feel similar problems. They were only to be resolved by the new circumstances and the reforms of the early nineteenth century.

### III. THE SOCIETY'S SOCIAL BASIS

So far I have dealt with Fellows in their capacity as Fellows only, almost ignoring the biographical notes that are included in the Catalogue. Now, however, it is time to turn to these, in an attempt to probe at the Society's social composition. I shall first analyse the whole, varied group of those elected to the Society, but from here one can go further. For the evidence about Fellows' activity presented in the Catalogue makes it possible to investigate if and how the type of people who made up the complete roll of members differed from those who showed any sign of activity or from those who were most active, and to see what changes may have occurred at the centre or the periphery during the twenty-five-year period under study.

The information in the Catalogue is not very profuse, and since it is mainly devoted to a summary of the career of each Fellow, the conclusions presented here deal almost exclusively with that. If a single criterion had to be selected,

however, this seems the most helpful available. Indeed, it is surprising that in statistical analysis of the Society's membership hitherto less attention has been paid to the occupations and social class of its supporters than to their political and religious affiliations, particularly since critics have pointed out the special dangers of categorizing the early Fellows from this point of view in the shifting circumstances of mid-seventeenth-century England (112). Here, I shall classify members almost entirely in terms of their source of livelihood, though I have also paid some attention to social rank, devoting a separate column to members of the aristocracy.

Like any attempt at categorization, this is naturally to some extent arbitrary. I have tried to stick consistently to the criterion of Fellows' sources of livelihood, but clearly those with rich and varied careers often fit badly into straightforward classes. Moreover, the simplistic designations that I have used often obscure potentially important differences between members of the same class which a much more elaborate analysis than that attempted here could exploit, for it would undoubtedly be interesting to seek conclusions about the Society's members by collating the Catalogue's evidence about their support, not only with such cursory biographical information as is provided there, but with much fuller details of their education, background and interests. Such a study would, however, encounter difficulties avoided by my relative superficiality—notably the classic problem of collective biography, the non-random survival of evidence from a period like this (113)—whereas the information about Fellows' careers that I have used at least has the advantage of being nearly complete and thus directly susceptible to statistical analysis. It therefore seems worth attempting a preliminary and less sophisticated investigation of the social basis of the Society's recruitment and support and its fluctuations, and it is this that follows.

I have used these categories. *Aristocracy*, whether born to the title or raised to it, but not including baronets. *Courtiers, politicians and diplomats*, exclusive of aristocrats who would fall into this category and of country gentlemen sitting in Parliament. *Gentlemen of independent means*, usually landed, including Members of Parliament whose political career took them no further than the back-benches at Westminster, but excluding lawyers. *Lawyers*, if actually practising, but not including all those educated at the Inns of Court, nor those who were also politicians. *Divines*, except those in holy orders who made their living as scholars—Oxbridge dons, schoolmasters and so on. *Doctors of Medicine*, including court physicians and those who held academic posts directly related to their subject, such as anatomy lectureships, but exclusive of those whose doctorate was clearly incidental to the main features of their

career, such as Thomas Wren (F22). *Professional scholars and writers*, excluding MD's with medical academic jobs but including all other professors at Gresham College, Oxford and Cambridge, professional scientists like Oldenburg (F33) or Hooke (F136), Oxbridge dons, schoolmasters and professional writers. *Civil servants and serving members of the armed forces*, including naval officers like John Wood (F367) and administrators like Povey (F47) or Pepys (F187)—i.e., 'administrative careerists' as opposed to 'courtiers and royal favourites' (114), who are included in my second class. *Merchants and tradesmen*; and *Foreigners*.

In following the criterion of source of livelihood, I have deliberately eschewed any such classification as 'Man of Science', only separating out those who actually made their living from science from those who pursued it in an amateur capacity. Though it would be interesting to include information on Fellows' proven scientific interests, there is no reason why this should have priority over other background information, none of which has been considered here. In this section I shall be concerned merely with collating Fellows' level of activity with their occupational status, and some 'scientists' were surprisingly inactive in the Society—such as Thomas Willis (F90) or Nicolas Mercator (F215)—while the enthusiasts who were very active included several who might strictly have to be defined as 'non-scientists'. Once again, however, this illustrates the limited and partial nature of the findings that follow.

I should point out that I have occasionally clarified the occupational status of Fellows from the sources cited in the Catalogue when it is not entirely clear from the very brief notes given there. Also, a few Fellows may have been wrongly classified owing to the difficulties of finding out anything about them: only 3% are wholly unidentifiable (and are thus designated in my statistics), but slight doubts remain about a handful more (115). The total number likely to be affected by this is very small, however, and the resulting problem not as great as that of the rather marginal classifications necessary in order to limit the number of groups sufficiently for them to provide meaningful samples for analysis. Such qualifications should be kept firmly in mind in considering the statistics that follow, as a warning against assuming that the figures given are definitive merely because they are precise.

The obvious starting point for analysis is the total membership in the period under study. Of all those elected between 1660 and 1685, foreigners comprised 10%. Of English Fellows, 15% were courtiers, politicians or diplomats; 14% were gentlemen of independent means; 14% were Doctors of Medicine; 13% were members of the aristocracy; 10% were professional scholars or writers; 8% were divines; 6% were merchants or tradesmen; 4% were lawyers;

4% were civil servants or serving members of the armed forces; and 3% are unclassifiable (see Table 5).

This general physiognomy bears out what is known from other sources concerning the composition of the early Royal Society, especially the high percentage of courtiers, politicians and members of the aristocracy. We have already seen how anxious the Society was to enlist the titled and eminent to its ranks, and how science evidently became a courtly fashion in the 1660s. Indeed, considering the extent to which the Society was always London-based, it is striking how far it was focused on Westminster and Whitehall rather than the City of London at this time, on Westminster, the seat of the Court, of Parliament and of the Law Courts, rather than on the City, the home of commerce (116). Though in its early years the Society met at Gresham College, deep in the City, in 1666 the Council considered the possibility of hiring a house in Westminster instead, since Gresham was 'by reason of its too great distance from the habitations of the greatest number of the society very inconvenient to meet in, especially in the winter season' (117). Moreover, meeting times were deliberately changed to fit in with meetings of the King's Council (118), and attendance fluctuated when crises in foreign affairs kept government officials away (119).

On the other hand, it is striking how few merchants and tradesmen joined, despite the hopes of Thomas Sprat and others that the useful new philosophy that the Society championed would find widespread support among the mercantile classes (120). The statistics of elections bear out the view of the Royal Society as a high-class intellectual social club and it is revealing, if such merchants as became Fellows are examined closely, how few of them were characteristic of their class. They included Sir Andrew King (F124), who had lodgings at Gresham College, George Cock (F204), government official as well as merchant, and Sir John Banks, whose social aspirations and Court connexions have been analysed by his biographer (121), apart from those evidently elected in their official capacity—notably the entire reception committee that received the Society back to Gresham College in 1673 after its exile at Arundel House (122). Similarly, the tradesmen elected were far from typical; for instance, John Houghton (F361), a Cambridge graduate and writer and no ordinary tea-dealer, or Joseph Moxon, Hydrographer to the King (indeed, what is more significant than his actual election is its lateness, considering that he had been associated with the Society earlier, and the fact that he received the unusual number of four negative votes when he stood for election) (123).

This only confirms what was already known, but if membership of the Royal Society in its early years is to be associated with West End fashion, can



any alteration be observed during the period under study? Is there any evidence that the Society moved away from the courtly focus around which it had begun? In the 1670s and 1680s, when the great 'boom' in recruitment of the 1660s was over, did those elected follow a different pattern from previously? And is there any suggestion that fashionable concern to join the Society dwindled?

For this, it is necessary to divide up recruitment chronologically, and I have selected five periods, in each of which a sufficient number of Fellows was elected to make statistical comparison reliable. The first comprises 1660 and 1661, when the Society was first formed and the earliest members joined. I have somewhat arbitrarily taken the 'secondary' membership to extend from 1662 to 1664 (I have ignored the category of 'Original Fellows', which does not seem to me particularly significant). The third period, which stretches from 1665 to 1669, covers the years from the King's election to the decline of recruitment at the end of the 1660s. The fourth covers the 1670s, and the fifth the 1680s (124).

If the figures for overall recruitment are broken down in this way, some interesting changes appear (see Table 5). First, the percentage of foreigners elected increases noticeably after the first few years, thus reflecting the steady growth of the Society's international renown even when its reputation at home was fluctuating. Of English Fellows, gentlemen, lawyers, civil servants and M.D.s show no consistent chronological fluctuation, and neither do divines, apart from a significant peak in 1665–1669. There is, however, a definite decline in recruitment of aristocrats and courtiers and politicians after 1669: the former comprised some 17% of all elected in the 1660s but had fallen to 4% by the 1680s, while the latter dropped even more spectacularly. On the other hand, there was a relative rise in the recruitment of merchants and tradesmen and also of professional scholars, who reached a height of 18% in the 1670s. In other words, so far as recruitment varied over this period, there was a tendency for the Society to achieve a slightly broader social basis. It was moving away from the denizens of Westminster and Whitehall to a slightly more general focus, including in its ranks more merchants and academics.

This analysis therefore throws doubt on Lawrence Stone's view that 'socially the Royal Society, after a promising beginning as an intellectual group open to talent regardless of rank, degenerated into a club for gentlemanly dilettantes' (125). The change may, however, have been relatively temporary: Sir Henry Lyons's analysis of the membership showed that the proportion of aristocratic Fellows was lower in 1700 than at any period until the nineteenth century (126), and in the reign of Queen Anne, as earlier, the Society still felt



TABLE 5  
*Distribution by occupation of all Fellows elected during various periods*

	1660-1		1662-4		1665-9		1670s		1680s		Total
Unknown	2	2%	2	2%	3	3%	4	5%	1	1%	12 3%
Aristocrats	19	21%	8	9%	21	20%	5	6%	3	4%	56 13%
Courtiers and											
politicians	24	26%	20	24%	10	10%	7	9%	1	1%	62 15%
Gentlemen	9	10%	15	18%	12	12%	13	17%	9	13%	58 14%
Lawyers	5	5%	1	1%	4	4%	2	3%	3	4%	15 4%
Divines	7	8%	6	7%	13	13%	2	3%	5	7%	33 8%
M.D.s	15	16%	10	12%	12	12%	9	12%	14	20%	60 14%
Prof. scholars	7	8%	8	9%	6	6%	14	18%	8	12%	43 10%
Civil servants	3	3%	5	6%	3	3%	3	4%	5	7%	19 4%
Merchants	1	1%	5	6%	5	5%	6	8%	8	12%	25 6%
Foreigners			5	6%	14	13%	12	16%	12	17%	43 10%
Total	92		85		103		77		69		426

TABLE 6  
*Distribution by occupation of all English Fellows elected during various periods  
who showed some sign of activity after admission*

	1660-1		1662-4		1665-9		1670s		1680s		Total
Unknown	2	3%	2	3%	3	6%	2	5%			9 3%
Aristocrats	14	18%	5	8%	5	10%	4	11%	2	6%	30 11%
Courtiers and											
politicians	21	27%	12	20%	7	14%	3	8%			43 16%
Gentlemen	7	9%	13	20%	6	12%	6	16%	5	14%	37 14%
Lawyers	5	6%	1	2%	2	4%	2	5%	2	6%	12 5%
Divines	5	6%	6	10%	4	8%	2	5%	2	6%	19 7%
M.D.s	14	18%	8	14%	12	24%	5	13%	9	26%	48 18%
Prof. scholars	7	9%	4	7%	5	10%	11	29%	7	20%	34 13%
Civil servants	3	4%	4	7%	3	6%	1	3%	3	9%	14 5%
Merchants	1	1%	4	7%	4	8%	2	5%	5	14%	16 6%
Total	79		59		51		38		35		262

that Gresham College was not really a suitable meeting place and that 'a seat nearer Westminster would be more convenient for people of Quality & render our meetings more numerous & thereby conduce much more to the improvement of natural knowledge' (127). Indeed, the Society evidently resisted the broadening of its support, so far as one can tell: it was in the 1680s that Joseph Moxon's election met such unusual opposition, and the value that the Society put even on nominal support from upper-class members was shown in the

reform of 1698–1699, when the hard line over payment of arrears towards ordinary members was not extended to aristocrats, Privy Councillors or even Members of Parliament (128).

All this concerns the total nominal membership, not a particularly significant sample, as we have seen, but it can be checked by considering, not merely all elected, but such Fellows as took any active part in the Society other than being admitted—those who paid subscriptions for a while and/or attended at least a few meetings. Table 6 deals with these, and it shows the same trends, although because of the smaller numbers only the decline in courtiers and politicians and the rise in professional scholars are statistically significant.

On the question of whether membership was more fashionable at some periods than others, statistics can offer little assistance, though it is worth noting that the percentage of Fellows who showed any interest in the Society after their admission was higher in the early 1660s than at any subsequent time: 86% of all English members elected in 1660–1661 and 74% of those elected in 1662–1664 fall into this category, whereas thereafter this dwindled to around 60% (see p. 24).

Statistics are more helpful on the question of the extent to which membership may have been more fashionable for some classes than others. If the number active in any way is compared with the total elected from each occupational group (cf. Tables 5 and 6) it transpires that among doctors, 80% showed some sign of activity; among lawyers, 80%; among professional scholars, 79%; among civil servants, 74%; among courtiers and politicians, 69%; among gentlemen, 64%; among merchants, 64%; among divines, 58%; and among aristocrats, 54%. The marked tendency of doctors and professional scholars to be active in some way is perhaps predictable, since their professions were likely to involve them in scientific enquiry, in contrast to those for whom it was a mere hobby, though it is not clear whether the equally high percentage in lawyers is to be explained along similar lines or to be written off as a distortion due to the small size of the sample involved. Perhaps most important is the suggestion that the attractions of merely subscribing one's name as F.R.S. were not peculiar to those of courtly, as opposed to mercantile, origin, for while peers and divines were likeliest to be purely nominal members, it is interesting that they were followed closely not only by gentlemen but also by merchants, whereas courtiers and politicians, with civil servants, showed a slightly higher tendency to activity.

If the five periods are examined separately, it emerges that there were certain episodes when a particularly high percentage of those elected from a certain class were inactive, as, for instance, with divines in 1665–1669, due to the

large influx of clerical 'Honorary Members' then. With aristocrats, the percentage of those elected in 1665–1669 who were inactive is even higher, but in the following periods science evidently became more vocational for members of this group, and most of those elected showed at least some interest. In contrast, there is a reverse tendency (although the numbers are small) for merchants and civil servants; almost all those elected in the 1660s showed some interest, whereas in the 1670s and 1680s fewer did.

All this concerns a minimal level of activity—perhaps as little as the payment of a year's subscription or attendance at a couple of meetings—which need not reveal more than a passing curiosity about the Society's proceedings. In considering it, we are one step away from a crude analysis of all who were ever elected, but still far from establishing what sort of people made up the section of the membership that really mattered to the Society. For this, I wish to move away from simple statistics based on recruitment, since, as already noted, the activity of many Fellows fluctuated, while their death or retirement naturally had a crucial effect on the Society's composition at different times. In order to provide more reliable statistics about the active membership of the Society at successive stages I have therefore analysed the whole body of Fellows in three sample years, 1665, 1672 and 1680 (Table 7). 1665 illustrates the Society's condition immediately before the plague and the resulting dislocation. 1672 represents the period when the Society's fortunes were desperate and the need for reform intense. 1680 is supposed to mark the beginning of the revival of the active nucleus, despite the continued languor of the periphery, in the late 1670s and early 1680s. I have also added a terminal sample for 1685.

In these years there were respectively 117, ninety, eighty-two and eighty Fellows classified in the Catalogue as active in some way: 'very active', 'active', 'fairly active', 'slightly active', 'regularly attending', or 'inactive but paying subscriptions regularly' (I have counted those who were 'barely active' as 'slightly active' if the reference to their participation is in or very near the year in question, or as 'inactive' if not). The categories and their weaknesses are explained in the appendix, and these figures should be regarded as indicative rather than definitive since, as far as activity at meetings is concerned, they merely compound the subjectiveness of my classifications based on the minutes published by Birch. The subjectivity is, however, evenly spread, so it does not affect comparative conclusions derived from them.

Most obviously, the figures for these years reflect the numerical decline of the Society's support already alluded to. As for the occupational background of members showing at least some signs of activity, they bear out the impression given by recruitment, with slight modifications illustrating the unreliability of

TABLE 7  
*Distribution by occupation and level of activity of whole body of Fellows*

	1665						1672					
	Total		Slightly active or more		Active		Total		Slightly active or more		Active	
Unknown	3	2%	2	2%			5	2%	3	3%		
Aristocrats	33	18%	17	15%	5	11%	39	19%	13	14%	4	12%
Courtiers and politicians	37	21%	25	21%	7	15%	40	19%	13	14%	5	15%
Gentlemen	25	14%	19	17%	5	11%	25	12%	11	12%	3	9%
Lawyers	4	2%	4	3%	3	7%	5	2%	3	3%	1	3%
Divines	15	8%	11	9%	4	9%	23	11%	12	13%	2	6%
M.D.s	26	15%	20	17%	11	24%	30	15%	16	18%	9	26%
Prof. scholars	13	7%	9	8%	6	13%	17	8%	12	13%	5	15%
Civil servants	11	6%	7	6%	3	7%	8	4%	4	4%	3	9%
Merchants	4	2%	3	3%	2	4%	6	3%	3	3%	2	6%
Foreigners	8	4%					18	9%				
Total	179		117		46		216		90		34	

  

	1680						1685					
	Total		Slightly active or more		Active		Total		Slightly active or more		Active	
Unknown	5	2%	2	2%			15	11%	6	7%	1	2%
Aristocrats	40	19%	7	9%	1	3%	15	11%	6	7%	1	2%
Courtiers and politicians	31	15%	11	13%	5	15%	16	11%	13	16%	4	10%
Gentlemen	27	13%	11	13%	4	12%	18	13%	13	16%	6	15%
Lawyers	4	2%	3	4%	2	6%	4	3%	3	4%	2	5%
Divines	17	8%	7	9%	1	3%	11	8%	5	6%	1	2%
M.D.s	23	11%	13	16%	6	18%	20	14%	14	17%	7	17%
Prof. scholars	24	11%	16	20%	10	29%	25	18%	16	20%	14	34%
Civil servants	7	3%	5	6%	3	9%	4	3%	3	4%	3	7%
Merchants	11	5%	7	9%	2	6%	8	6%	7	9%	3	7%
Foreigners	21	10%					19	14%				
Total	210		82		34		140		80		41	

statistics from that source in illustrating the real composition of the Society at any time. Predictably enough, the number of aristocrats falls consistently while the number of merchants and professional scholars rises and such classes as civil servants remain fairly stable. But it will be observed, for instance, that the decline of courtiers and politicians follows a more subtle course here than in the statistics of all elected: for whereas recruitment dwindled to almost nothing, the number of this class active or slightly active in the Society, after falling drastically between 1665 and 1672, thereafter remained fairly constant, reflecting the continuing interest of members elected early on.

Moving away from all those showing any sign of life whatsoever, we come to the heart of the Society, to those who, in the four sample years, fall in the categories 'very active', 'active', 'fairly active', or 'regularly attending', in the Catalogue, who are summarized as 'Active' in Table 7. Here the numbers are even smaller and therefore statistical conclusions must be still more tentative. It will be seen that in this active membership all classes are represented, but two groups—the doctors and the professional scholars—are proportionately more active, and aristocrats (though not courtiers) less active, in relation to their numbers. As far as the actual composition of this most active part of the Society is concerned, there is only one significant change, and that is a marked increase in the percentage of professional scholars between 1665 and 1685, from 13% to 34% of the total. By 1685, these, when combined with the doctors who had always been very prominent, made up exactly half the Society's active centre. I have deliberately combined these two classes thus because I have already pointed out how, in contrast to other classes, the careers of doctors and academics were likely to involve them in scientific activity. What one sees, therefore, is an increasing tendency for an active concern with the Society's business, ranging from frequent attendance at meetings to contributions to research, to be taken by men for whom science was more or less directly connected to their professional interests.

This is suggestive, although wider conclusions about the declining role of the amateur in organized science would be premature. The alteration observed is not very large, and further research is needed to see whether the trend continued beyond the quarter-century studied here, or whether it was an aberration of the 1680s, which I have not attempted. The only evidence I have scrutinized to test the hypothesis is a list of those asked to provide scientific papers in the reform of 1698–1699—not necessarily an accurate guide to actual activity—of whom some 29% were professional scholars and 32% doctors, thus bearing out the prominence of the combined group, although medical men had now overtaken academics numerically (129).

In any case, it is at this stage that most caution is needed against undue reliance on these somewhat subjective statistics, and it would certainly be wrong to seek direct results of this tendency towards professionalization in the method and content of the Society's scientific work. For at this level of participation in the Society's work statistics based on the crude analysis of Fellows' source of livelihood are least likely to be useful. With the active nucleus, the numbers involved are so small that far more detail can and should be amassed about the interests and background of each Fellow in order to build up the more sophisticated sociology of knowledge needed to approach their role in the Society's development.

This section of this article must, therefore, end on a cautionary note. It was worth attempting to draw conclusions about the changing social basis of the early Royal Society, and the resulting views as to how the active section of the Society became more professional while recruitment became socially more broadly based are suggestive, but they remain somewhat tentative and provisional. They illustrate the uses to which the Catalogue attached to this article may be put but they are far from exhausting them, least of all when the evidence about Fellows' activity to be found there is collated with fuller information about their background. Here, above all, I hope that the detailed factual matter in the Catalogue will prove a useful catalyst to further research.

## APPENDIX I

### NOTES ON THE CATALOGUE AND ITS DATA

#### 1. *Biographical information about Fellows*

My brief notes are meant to summarize the leading features of each Fellow's career while he was a member of the Society. I have only incidentally mentioned offices held but relinquished before election, and, in the case of Fellows who resigned or were expelled, I have ignored their advancement after they left. I have deliberately made much use of 'etc.', since my remarks often necessarily fail to do justice to a full and varied life: those seeking fuller information should turn to the biographical sources cited. In the case of Fellows dealt with by the *Dictionary of National Biography* (with two exceptions, James Carkesse (Fr62) and Thomas Neale (Fr65), on whom the information in DNB is very cursory indeed) I have deliberately saved space by citing only entire books devoted to the individual in question in addition to DNB, not articles or sections of more general works (except for the *Dictionary of Scientific Biography*): such books are cited merely by name of author and date of publication. For those not in DNB, I have referred to the fullest available source (or sources, if no single one is very full). Concerning titles, I should point out that where a Fellow acquired a new title after joining I have added this in brackets with the date conferred; in the case of Fellows who resigned or were expelled, I have not included any titles acquired after the termination of their membership.

In general it has been relatively easy to identify Fellows, since a high percentage appear in the standard reference books on the different élites of English society—an index of the general distinction of the membership. Only seven have proved wholly untraceable, though an element of uncertainty remains concerning a handful more. The former are as follows:

Roger Williams (F160), who cannot be either the famous colonist (d. 1683) or the Welsh cleric mentioned by Venn (d. 1703), since it is clear from the Royal Society's accounts that the F.R.S. of this name had died by 1666. Foster has a 'gent.' of this name who matriculated at Merton College, Oxford, in 1653, but no further details have been found.

Edward Jeffreys (F278), given as M.A. in the 1669 and 1670 printed membership lists and as LL.D. in that of 1671. Foster has an E.J. of Exeter College who matriculated in 1655 and became an M.A. of Jesus in 1661, but nothing else seems to be known of him.

John le Gassick (F308), who was said when elected to be an M.D. but who appears in neither Munk nor Innes Smith. He was proposed by Petty and he evidently died soon after his election (130).

John Herbert (F335). There is a letter from the F.R.S. of this name (dated Montpellier 22 February 1699) in LBO XII, 306–307, which shows him as a widely cultured and enthusiastic virtuoso, an impression born out by the occasional references to him in the minutes. The John Herbert mentioned in Foster as matriculating at Jesus College, Oxford, in 1672, seems unlikely to be the same man.

John Bembe (F344), evidently a virtuoso who had travelled widely in Europe (as his contributions to discussions recorded in the minutes show) and a correspondent of Abraham Hill (131), but whom I have not been able to otherwise identify.

William Napper (F355). Bulloch suggests that he was of the Dorset family of this name, but in the genealogy of the family in J. Hutchins's *History of Dorset* (third edition, 1868), III, 125, the only man of this name of approximately this date would have been seventy-two at the time of his election. A William Napper mentioned in J. Gillow's *Biographical Dictionary of English Catholics*, V, 155–156, Catholic chaplain to the Spanish embassy in London in 1678, was involved in the Popish Plot and unlikely to have become F.R.S. at the date in question.

Samuel Blackburne (F394) was conceivably the 'Mr Blackburne' considered by Oldenburg as a possible History of Trades curator for the Royal Society in the late 1670s (132).

For a few Fellows, alternative identifications exist, notably two whose Christian name is unknown, which makes definite identification almost impossible. In the case of Mr Wyndham (F330), the likeliest candidates are Edmund W., a Somerset M.P., John W., a Wiltshire one (both in Foster), or Thomas W., courtier and M.P. (133). With Mr Flower (F255) the identification as a mathematical-instrument maker seems likeliest, though Foster has two minor clerics of this name: it is improbable that the F.R.S. was Stephen Flower, Agent of the East India Company in Persia, who sent information for Oldenburg, but had to be introduced by Lannoy later in 1668 (134). Another uncertain case is that of William Hammond (F70). *Topographical Miscellanies* (1792) under 'Kent' claims that he was educated abroad as a physician; Foster mentions a barrister of this name at Gray's Inn in 1663; while DNB has a poet of this name, of the same Kentish family (which could be the same person as one or other of these). I should also note here that though John Alleyn (F69) has been identified in the Catalogue as a lawyer, Beaven (II, 89) has a London alderman of this name, a Painter-Stainer, who died in 1663 and who could conceivably have been the F.R.S., while it is possible that, of the two men named James du Moulin who appear in DNB, the F.R.S. was not the one whom I have provisionally identified as such (F246).



Apart from this, uncertainties remain about various other Fellows. One such is Henry Eve (F384), identified in the 1682 accounts as 'Captain' and so definitely not either of the men of this name mentioned in Venn, but whom I have not been able to locate in any reference book of military or naval officers. Another is Edward Haynes (F406); A. Armitage in his *Edmond Halley* (1966), p. 206, mentions an observation of his at Totteridge, Hertfordshire, and a man of this name was a Commissioner for poll-tax in Hertfordshire in 1692 (135), which suggests that he is not the Cranleigh doctor who died in 1708, whose epitaph is given in *London Magazine*, XXIV, 295, though he remains a shadowy figure. Others are Richard White (F75), probably the 'gent.' of this name who translated Sir Kenelm Digby's *Of the Cure of Wounds by the Powder of Sympathy* (1658) (136); William Schroter (F110), who certainly cannot be the German diplomat of this name mentioned in *Allg. Deutsch. Biog.*, who died in 1663; Edward Smith (F158), most likely the brother of George Smith (F120), since the minutes of the Georgicall Committee show that both hailed from Gloucestershire (137); and Oliver Hill (F329), a curious figure whose background would repay further investigation.

In other cases, a Fellow can be genealogically identified but his status remains uncertain, as with Cornelius Vermuyden (F64), John Colwall (F262) and James Hoare junior (F274). There are a few other identifications which still seem to me slightly uncertain or inadequate in some way (138), and undoubtedly in these and other instances where relatively little information is available, further evidence about the careers of the men in question will yet come to light which may seriously alter the identification given in the Catalogue. This is perhaps particularly so in the case of 'ordinary' gentlemen, where the standard reference books tend to dwell on ancestry, landed wealth and education, and a whole side of a man's career (such as a successful career in commerce) could easily be overlooked, though I have done my best to avoid this. Since I have come across some of the information that I have used by almost pure serendipity, I have undoubtedly missed more, and this should be borne in mind in considering my statistics based on biographical information, though the number of cases likely to be affected by this is insufficient to make any marked alteration.

## 2. Election, admission and the printed lists of Fellows

The most accurate list of Fellows with dates of election is to be found in *The Record of the Royal Society*, and I have followed this in preference to the minutes published by Birch where the two conflict (139). *The Record*, however, gives all Fellows elected before the granting of the second charter in 1663 as a single group, whereas I have tried to place them in chronological order of election, thus illustrating the different strata of the Original Fellowship. For this I have used such dates of election or admission as are given in the minutes, but since these do not record all elections, I have supplemented them by using 'The Accompt of William Balle', the first Treasurer (140). This lists Fellows in order of the date when they became eligible to pay subscriptions, and a complete chronological list can be built up by marrying it with such dates as are given in the minutes. I have also inserted at the appropriate places those who are recorded in the minutes as being elected but who never appeared in either the account of William Ball or the list of Original Fellows of July 1663.

There were eleven cases of people being elected to the Society twice between 1660 and 1685. All but two date from the Society's earliest years, when the formalities of election were evidently not as fixed as later, and in some cases the second election followed the compilation of the list of Original Fellows in 1663 and was a means of inserting into it someone who had inadvertently been omitted (141). The two Fellows re-elected after 1664 were Lord John Vaughan (F63) and

Sir Justinian Isham (F141); in both cases, the first election seems to have been entirely forgotten by the time of the second. For the sake of consistency I have inserted all those elected twice under their original date of election, with a subsidiary note at the date when they were re-elected.

Though I have included all who were elected in my Catalogue, in fact election was only part of the process of becoming a Fellow. Before those elected were deemed full members of the Society, they had to be formally admitted by the President and subscribe their name in the Society's Charter Book (or, before this was begun in 1665, the first three pages of the first Journal Book) (142). Naturally it was difficult for foreigners and similar absentees to be admitted and for them the formality was often waived, while in the first few years the ritual was evidently less established than later and quite a large number of Original Fellows never subscribed their names (143). In view of this I have not devoted a separate column in the Catalogue to noting whether or not Fellows were admitted, since the fact is apparently often of little significance. Even at a later date a few active Fellows never signed, including Sir Anthony Deane (F371) and Martin Lister (F288), in the latter case doubtless due to the fact that he was at first an 'absent' Fellow and his failure to be originally admitted was subsequently overlooked (144). In general, however, after the first few years, failure to be admitted in the case of English Fellows implies that, unless the man in question was clearly a 'provincial' member, his lack of interest in the Society was such that he could not be bothered to go to a single meeting: I have therefore indicated the fact that he was never admitted in the column devoted to 'activity as seen in minutes'.

Indeed, this failure to be admitted goes some way towards explaining why numerous Fellows who were elected never appeared in the printed membership lists issued each year. Of English Fellows elected between July 1663 and 1685, thirty-one never appeared in the printed lists and of these all but four were never admitted (145). These four were William Gomeldon (F152), Roger Williams (F160) and Benjamin von Munchausen (F413), all of whom none the less appeared in the accounts for a while, and Oliver Hill (F329). In Hill's case this was clearly due to the Society's disapproval of his interests (146), whereas the omission of the other three was apparently due to administrative inefficiency. With these exceptions, however, those whom the Society never bothered to insert into the printed lists can be dismissed as of little importance, and, though they must be included in any chronological list of those elected, their significance to the Society was hardly greater than that of another group of persons whom I have not included in my Catalogue although they are not uninteresting—those proposed but not elected (147). The corresponding category in the period before the list of Original Fellows was drawn up in 1663 comprises those who were elected but were not included in this list: they are designated 'Not O.F.' in the Catalogue, which may be taken to mean that they never appeared in any of the printed lists either, unless subsequently re-elected (148).

Allowing for such evidently deliberate exceptions, the printed lists published annually by the Society from 1663 onwards provide an almost complete view of the Fellowship in any given year. Indeed, they were evidently used as ballot papers in Council elections (149), apart from their more general role in advertising the Society's membership. They are not totally accurate. Fellows sometimes fall off the list for one year but then reappear—as, for instance, occurred with all but three of the Society's Foreign members in 1678—and they were not always removed very quickly after their death, reaching an extreme in the case of the Earl of Kincardine (F3), who died in 1680 but remained on the lists until 1698. It may be suspected that similar mistakes account for instances where Fellows unexpectedly fail to appear in the lists for some

time after their election, as with J. P. Jordis (F383) or Jodocus Krull (F388), or perhaps when they disappear prematurely, as with Sir John Denham (F42), who disappeared from the lists after 1663 although not expelled until 1666. In a few such cases the evidence of the lists about dates of membership can be supplemented by the accounts: apart from the three Fellows referred to on page 45 who paid subscriptions although never in the lists, Sir John Clayton (F88) made some payments after his removal from them.

In general, however, the appearance or non-appearance of Fellows' names in the printed lists was of crucial importance, since it was by leaving names off them that the Society expelled unwanted Fellows. In the Catalogue, therefore, it may be assumed unless specifically stated to the contrary that a Fellow remained in the lists until he was expelled or resigned or until the date (or approximately the date) of his death: I have mentioned the last list in which a Fellow appears only when this was well before his death or in cases where date of death is obscure and where the disappearance of the name of the member in question seems likely to be due to death rather than expulsion or resignation (in such cases the information is recorded in the column devoted to date of death rather than that for expulsion or resignation). A small complication is caused by the fact that lists have not survived for all years. The combined holdings of the British Library, the Bodleian and the Royal Society provide an almost complete run of lists for the relevant years (150), but no copies have been located of those for 1673, 1676, 1694, 1700, 1707 and 1709. Where the Catalogue states that a Fellow last appears in the list for the year preceding one of these, therefore, it is possible that he actually remained in the lists for one year longer.

### 3. *Office-holders and Council members*

I should point out that I have strictly refrained from mentioning any offices held after 1685—even in such classic cases as the later Presidency of Newton (F290)—so as to ensure that the coverage given in the Catalogue is wholly uniform. I have not mentioned 'semi-official' posts held by Fellows in the period under study, notably the office of Vice-President and membership of the annual committees for auditing the Society's accounts, though I have taken them into account in assessing activity as reflected in the minutes. The significance of office-holding hardly needs elucidation here, but it is perhaps worth briefly considering what was involved in Council membership.

In general it is clear that active enthusiasts tended to be elected to the Council, and they were often regularly present: since a full record of attendance was kept in the Council minutes (published by Birch), this can be evaluated precisely. The fact that a Fellow was elected to the Council does not mean, however, that he was active in the Society in general. Council elections were entirely democratic, those being chosen who received most votes from the members present at the anniversary meeting each year, and votes could be cast for anyone: Pepys, to his surprise, got three in 1666 although 'but a stranger, nor expected any' (151). It is clear that some of those elected to the Council were not particularly willing—some never attended a single meeting—and conclusions from Council membership should be tempered by a consideration of the evidence about activity which follows in the Catalogue.

One interesting fact revealed by comparing Council membership with activity is that some active Fellows were never on the Council, including Charleton (F68), Aubrey (F127), Collins (F235), Clüver (F346), Houghton (F361) and Paget (F398), which must mean that they were not considered suitable for the office by the members voting on St Andrew's Day. The reasons for this are not entirely clear. It may have been felt that members like Charleton, Collins and Paget,

who were exempt from subscriptions, were unfit for membership of a body which had to deal with financial questions among others. But this did not prevent others who were exempt from being put on it, such as Pope (F72), Flamsteed (F327) and Perry (F345), and this objection did not apply to Clüver and Houghton, both of whom were regular subscribers. In their case it may have been felt that they were unsuitable on more subtle, social grounds, which may also have applied in the case of Aubrey, living the life of a scholar-vagrant from the early 1670s onwards.

#### 4. *Activity at meetings and the evidence of the minutes*

For the fifth column of the Catalogue, the source is the Society's minutes, published in the eighteenth century by Thomas Birch as *The History of The Royal Society of London*. Birch provides an accurate copy of the minutes recorded in the Journal Books, inserting the Council minutes at the appropriate chronological points from their separate manuscript. I have examined the surviving draft minutes to see if the final Journal Book version omits anything of importance in the draft, but have found that such omissions and differences as there are are trivial, except for notes of 'arrears' of business kept in the early 1660s, which subsequently degenerate into memoranda by Oldenburg, and two meetings wholly omitted in 1674 (152). On the whole, therefore, Birch's text may be taken as reliable.

The minutes provide a uniquely detailed account of the proceedings at meetings, preserving a lengthy record of even somewhat trivial discussions, and the spoken or written contributions of individual members can easily be assessed. What I have done is to go through the contributions of Fellows as recorded in Birch and give a general and sometimes slightly subjective qualitative and chronological assessment of each—that is, both his level of activity and any fluctuations in this that may seem noteworthy. My findings are admittedly impressionistic, but they can easily be checked by following the lists of references to each Fellow conveniently provided by the new index to Birch by G. E. Scala published in the *Notes and Records* for April 1974.

I have used the following categories. 'Very active' implies that for the period specified or throughout his career as F.R.S. the Fellow in question was part of the most active section of the Society, one of those who helped to direct research or who frequently contributed to discussion. Though it would be possible to analyse more precisely just how much each of these contributed to the Society's achievement, this is not feasible in the space available, and I have not even differentiated those who were most active as experimenters from those more inclined to comment on the work of others. Next comes 'active', the label I have used for those who made frequent contributions but not the overwhelming number encountered in the 'very active' group. There follow the 'fairly active', those who are mentioned perhaps a dozen times in the minutes in a decade; then the 'slightly active', with a handful of references scattered over a few years (naturally in these cases I have made allowance for the length of time involved). Lastly, there are the 'barely active' with one or two references (which I have often dated) scattered over several years, and the 'inactive'. In cases where Fellows appear in Birch not for joining in discussions at meetings but as correspondents, I have indicated this.

I have omitted references in the minutes which do not imply activity on the part of the individuals concerned, notably mentions in connexion with moves to collect arrears or make expulsions. This also applies to membership of the committees that the Society set up to deal with various aspects of its research in 1664, since all Fellows were put on one committee or another, and membership of them meant very little: some who were put on them were not

even in England, such as Winthrop (F98), Huygens (F139) or Hevelius (F163), and the Council evidently had a penchant for putting peers, politicians and suchlike Fellows who were otherwise barely active on the Mechanical Committee, intended 'to consider and improve all mechanical inventions' (153).

The categories that I have used may seem rather subjective, but it is not clear that it would be wise to categorize the material provided by the minutes more strictly, except in the case of the most active members. For, though the evidence provided by the minutes is full, it is almost beguilingly so, seeming to be complete when in fact it is clear that it is not. Such sources as Oldenburg's letters and Evelyn's *Diary* show that transactions took place and comments were made at meetings which were not recorded in the minutes, and it seems likely, hardly surprisingly, that the minutes provide only a partial record of all that took place at any meeting (154). Besides, Birch only printed the minutes of meetings of the whole Society and the Council, although minutes also survive for a few committee meetings which occasionally suggest the activity of members who were little in evidence at ordinary meetings, including John Austen (F25) and Sir Edward Harley (F144) (155). Similarly, it is clear from sources like Hooke's *Diary* that much important discussion went on before and after meetings in coffee-houses and elsewhere, and in the case of correspondence Birch naturally only mentions letters that were read out at meetings, a mere fraction of the Society's total correspondence, most of which survives: thus Sir George Croke (F325), for instance, entirely 'inactive' as far as the minutes are concerned, had corresponded at length with Oldenburg before his election (156), and my classifications may seem unfair to such members. My criteria of activity, however, refer exclusively to activity at the Council meetings and ordinary meetings that were crucial to the institutional life of the Society, regardless of the importance of what may have gone on in less formal ways outside them, and, for the sake of consistency, I have stuck entirely to the evidence of Birch.

It might be thought possible that the level of minute-taking fluctuated during the twenty-five years covered by this study, which would imply that the chronological variations in Fellows' activity that I have noted might merely reflect changes in the relative conscientiousness of the Secretaries at different times. In an attempt to test this, I have roughly analysed the average quantity of minutes devoted to each meeting over the period (allowing for the texts of papers read and other material inserted by Birch), and have found that this remains relatively similar, thus suggesting that the problem is not a serious one, so far as it is possible to judge. In any case, I have only remarked on chronological changes in Fellows' activity in the Catalogue when they seem very marked, as a large number do.

If contribution to the Society's proceedings is relatively easy to judge, however, attendance at meetings presents more difficulties. As already noted, attendance at Council meetings was fully recorded in the Council minutes, so the regularity of Council members can easily be assessed and I have conflated the evidence from this source with that of activity at ordinary meetings as recorded in Birch, indicating 'frequent attendance' by Council members when there is evidence for this. Attendance at ordinary meetings is more problematic, since, although the total numbers present at ordinary meetings are occasionally known, the minutes give the names of all the ordinary members present at a meeting only once in this period—on 28 March 1666, when thirty-one Fellows attended (157). Apart from this, our knowledge of attendance is haphazard, depending on whether a Fellow happened to make a remark that was recorded in the minutes, and, in theory, a Fellow who attended every meeting while he was F.R.S. but never said a word at any of them would misleadingly appear in my classification as 'inactive'. Certainly, the comments made by Fellows whom I have classified as 'slightly' or 'barely active'



often come quite at random in the course of discussion, suggesting that the Fellow in question was in fact present on many other occasions without making any verbal contribution to the proceedings (158).

There are also occasions when otherwise barely active members are mentioned as mere observers of the proceedings. The only reference to the Marquis of Halifax (F317) after his admission, for instance, concerns an experiment that had been shown at an earlier meeting and was repeated for his benefit, he being 'then present' (159). Likewise, the minutes for the meeting on 1 March 1682 note that Frederic Slare's experiments with phosphorus were especially appreciated by 'the Earl of Aylesbury, the Lord Cavendish, and Mons. Justel, who had not seen the like', and whereas Justel (F393) is known from other references to have been active at this time, the Earl of Ailesbury (F56) had otherwise not been mentioned in the minutes since 1676 nor Cavendish (F35) since the meeting on 28 March 1666 when attendance was recorded in full (160). Indeed, it is interesting that of the Fellows listed as present on that occasion, not only Cavendish but three others would otherwise have seemed almost entirely inactive (161). It is also instructive that among Council members whose attendance at Council meetings is fully recorded are several who would otherwise not have seemed very active, notably William Erskine (F79), John Creed (F155) and (except for a sudden outburst of contributions to discussion in 1677-1679) Sir John Lowther (F157).

It is possible, as we shall see in the next section, that regular payment of subscriptions is a clue to frequent inarticulate attendance, but all this should certainly be a warning against too close a reliance on the classifications of minor members' activity based on the references to them in the pages of Birch. The difficulty is, however, absolute rather than relative: it does not affect the evaluation of different levels of activity, since our knowledge of the attendance of active members at ordinary meetings is as dependent as that of the less active on what was set down in the minutes, and the record of their activity is only an approximation to their actual attendance. Thus the *Diary* of John Evelyn allows an independent check to be made on his attendance at meetings other than those at which he was mentioned in the minutes, and if the two sources are collated, it transpires that neither provides a full record: in 1664, for instance, Evelyn noted his attendance at ten meetings, Birch records his presence at nine, and only three of these overlap; in 1668, Evelyn mentions nine, Birch five, and one overlaps; in 1679, eleven meetings appear in the *Diary*, Birch notes Evelyn's presence at nine, and four overlap; while in 1683 the equivalent figures are twelve, six and three.

##### 5. *The account books and Fellows' financial contributions*

As has already been mentioned, every Fellow when admitted was liable to pay admission money and thereafter to make weekly contributions, and complete details of their payment or non-payment of these dues were kept by successive Treasurers in a series of account books which have survived in full, except that the accounts for 1674 were never entered (162). There were, however, various exceptions to this general rule. Foreign members were never expected to make any contributions (163), and a number of English members were wholly or partially exempted for different reasons: these are designated 'exempt' in the Catalogue. Among these were such 'Honorary Fellows' as the Duke of York (F181) and Prince Rupert (F191), Sir John Cutler, Hooke's benefactor (F171), the various Bishops who joined the Society in 1665, and such eminent statesmen as Lord Robartes (F216) and the Earls of Albermarle (F182), Clarendon (F185), Manchester (F198) and Lindsey (F217) (164). Another class of Fellows who were never charged dues were the professors of Gresham College, evidently because of the hospitality



extended to the Royal Society by the College at this time (165). Beyond this, some Fellows were allowed to pay only half the normal subscription (166), while a number of Fellows were totally exempted by order of the Council at different times. These included diplomats (167), scientific enthusiasts in the provinces (168), dons at Oxford, Cambridge and St Andrew's (169), paid officers of the Society and some members who were active in contributing experiments and other business (170). Apart from these, a number of Fellows were exempted for no very clear reason (171), and a few people were also omitted from the accounts although there is no note of their formal exemption, some of them because they joined after the last list of exempt Fellows was drawn up in 1682: these are designated 'never in accounts' (as opposed to 'exempt') in the Catalogue (172).

The Society was slightly inconsistent towards those let off in this way. Thus Robert and Thomas Harley (FF81, 228) were officially exempted in 1668, but in 1673 the Council made enquiries about exactly when they were admitted to the Society so that their arrears could be assessed, and similar enquiries were made concerning two Fellows who had not previously been in the accounts although not exempted (173). Two of those who were half-exempted, Wren (F12) and Holder (F39), were later charged at the full rate, the former from 1675 and the latter from 1682, while although Pell (F19) was excused payments in 1660–1663, his 'arrears' were assessed in the accounts until 1678, when he was omitted. Similarly, neither Lister (F288) nor Newton (F290) appeared in the list of exemptions compiled in 1682 and their mounting arrears were entered into the accounts year by year, but isolated notes elsewhere suggest that they were treated as exempt (174). In this there was an element of pure administrative inefficiency, which is also evidenced elsewhere in the accounts. There was a tendency for arrears to be mechanically added on quarter after quarter even after the member in question had died or resigned (175), and even—in the case of Anthony Lowther (F133) and Henry Eve (F384)—after they had been expelled. Moreover in at least one case there is evidence that arrears were miscalculated. Thus the arrears cited against Sir James Hayes (F111) in the 1680s suggest that he had paid no subscriptions since 1667, whereas in fact he was regular until 1670: this was due to the fact that an extra £10 was inadvertently added when the figure was carried forward from 1681 to 1682.

Allowance can, however, be made for such errors, and in general the accounts are very reliable. The terminology that I have used to characterize the conscientiousness of each Fellow in paying his dues is largely self-explanatory, but I should explain those phrases that are not. 'Regular' means that the Fellow in question was normally less than a year in arrears and never more than two. 'Fairly regular' implies that he was never more than three years behind, or that he was mainly regular but occasionally fell behind by as much as five years. 'Irregular but persistent' indicates that the member tended to fall into arrears of more than three years at a time, but ultimately paid up several years' dues at once. I should also point out that the date when people ceased to be regular is often marked '*circa*', since it obviously took a few years for this to be noticeable. Apart from this, however, subscriptions provide an almost more sensitive barometer than the minutes of the chronological fluctuations in Fellows' interest in the Society, and this column indicates who, at each stage, provided the crucial financial support on which the Society depended.

Naturally subscription-paying and activity did not entirely overlap. When the evidence from the accounts is collated with that of the minutes, it transpires that if a member was active, the Council was inclined to turn a blind eye on his arrears. Among active members who paid no dues at all, or almost none, were Thomas Povey (F47), Daniel Coxe (F189), Thomas Allen (F253), Sir Jonas Moore (F313) and Frederic Slare (F369), while many others fell more or less

badly into arrears at different times, as the Catalogue shows. Indeed, since a number of the most active Fellows were exempt from subscriptions altogether, it transpires that at the best of times only about two-thirds, and at the worst only about half, of the most active members were among the regular subscribers, most of whom were less active: thus to a significant extent the Society drew its expert and financial support from different sections of the membership that only partially overlapped.

If one looks at more minor members, on the other hand, it seems likely that there is some correlation between those who were regular in their payments and thus provided the Society's financial support, and that anonymous band of Fellows who swelled the Society's numbers at meetings without appearing very often in the minutes. Certainly, the Catalogue shows considerable overlap between slight activity as evidenced in the minutes and fairly regular payment of subscriptions, while in cases when 'good paymasters' appear from the minutes to have been hardly active, the Fellows in question may have been frequent, silent spectators at meetings. Possible examples of this at different times include Gilbert Burnet (F161), James Carkesse (F162), Edward Nelthorpe (F211), John Colwall (F262), Sir Kingsmill Lucy (F268), James Hoare junior (F274), Sir John Williams (F285), Sir Jeremy Sambrooke (F380), Thomas Firmin (F360) and Benjamin von Munchausen (F413), and in such cases the accounts might almost be taken as supplementary evidence concerning attendance.

It would be wrong to pursue this too far, however, since some of these may not have attended much, and others in this class certainly did not. Elias Ashmole was consistently regular in his payments, yet in all the mass of information about Ashmole's life and activities accumulated by C. H. Josten there is hardly any evidence for Ashmole's presence at any meeting of the Society after his admission, as there is hardly any in Birch, and he was evidently a useful source of financial support though almost entirely inactive (176). Other regular subscribers at different times included a number of Fellows who are known to have lived in the country and who therefore can hardly have attended very frequently, such as (for longer or shorter periods) the Duke of Devonshire (F28), Francis Potter (F130), John Newburgh (F168) and Malachy Thrustone (F200), apart from Edmond Castell (F310) in Cambridge. Obviously the Society valued financial assistance from those who, for one reason or another, were unable to be present.

In any case, without trying to make overprecise correlations, the combined evidence of minutes and accounts at least brings one nearer to evaluating who were the 'useful' rank and file members as against that section of the 200-odd members at any one time who were entirely inactive. For if someone appears in the minutes barely or not at all and was also bad at paying subscriptions, the presumption is that they were marginal to the Society. If, on the other hand, they did pay their subscriptions with or without also appearing occasionally in Birch—with the benefit of the doubt extended to them concerning attendance—they formed a valuable section of the Society, helping to provide the funds without which it could not have survived and possibly also swelling its numbers at meetings. The Catalogue illustrates in detail which Fellows, at different times, formed this group.

#### 6. *The Society's evaluative lists of Fellows*

Apart from the lists of more or less 'useful' Fellows compiled by the Council in the 1670s and referred to in the text, I shall also consider here the various lists of members' arrears compiled between 1666 and 1678. The evidence that these provide—particularly the former—valuably supplements the information from the sources already outlined, often confirming conclusions derived from that. It is not always easy to estimate the significance of the differences

between them, however, since when a Fellow in arrears was omitted from an arrears list or an evaluative list makes a member seem marginally more desirable than one would otherwise have expected, it is quite impossible to know whether this was because he attended more regularly than one would have guessed from other sources or because he had powerful friends on the Council. Conclusions based on this class of evidence should be very cautious.

First I shall deal with the arrears lists preserved among the Society's Domestic Manuscripts, dating from 1666, 1673 and 1678. Basically, these abstract the accounts for their respective years, giving the amount owed by those Fellows most dilatory in their contributions. None of them, however, is a straight transcript of the sums owed by the most recalcitrant Fellows: in each case there has been some selection, some explicable in terms of ignoring the arrears of active or absent members, while some is not. Since, except for the latter, the material that they present overlaps entirely with that which I have derived independently from the accounts, I have not bothered to enter it in the Catalogue, merely noting unexplained discrepancies here.

The 1666 list (DM V, 2) contains thirty-two names and is divided into four parts. The main list of twenty-three names is merely entitled 'Arreares at Michaelmas 1666'; the others comprise a note of the arrears of three Fellows who had died, a short section entitled 'Consider of theis arreares', containing Pell (F19) (see page 50) and two members who lived away from London and were subsequently half-exempt, Barrow (F115) and Bathurst (F149), and a list of six names to be considered for expulsion, which I shall discuss below. In general, the list tends to concentrate on those who were both in arrears and inactive, ignoring various Fellows who were (or had been) active or slightly active, and various absent members who had accumulated arrears (177). But it inexplicably omits a few inactive members with large arrears, including two aristocrats, and it is slightly inconsistent concerning those with less than two years' arrears, including some but omitting many others (178).

The 1673 list (179) contains eighty names, but an interesting feature is a separate list itemizing the arrears due from fourteen 'absent Members' which was evidently made in conjunction with it, perhaps at the suggestion of Henry Howard of Norfolk, who proposed 'that the absent in remote places might be considered'; I shall consider this below in connexion with the question of 'provincial' Fellows (180). The main list basically follows the accounts, ignoring some of the large and incorrect sums charged against Fellows who had died or left the Society due to the rather mindless way in which the accounts were compiled (181); it also omits various active members, some absent ones (other than those on the separate list) and a few that are less easily explained (182). On the other hand it includes five members whose arrears were seemingly excusably small (183).

The 1678 list (DM V, 16 and 18), which has eighty-one names, is similar, except that here absent members are silently ignored (184). As before, the arrears of various active or slightly active members are omitted and a few Fellows appear whose arrears seem excusably small (185). Again, some omissions from the list are surprising, though some of those omitted in 1673 are now included, while some relatively large debts were evidently ignored because it seemed unlikely that they would ever be forthcoming (186). Such peculiarities are recorded here because they might be significant and because they illustrate the difficulties of depending on such material rather than on the Catalogue's examination of such material as there is to substantiate or challenge them. It should be remembered that all were private documents, intended for the eyes of the Council and not for public consumption, and they were probably never checked carefully, so that many of the omissions (and perhaps the inclusions) could be entirely accidental.

Complementary to these papers about arrears are the various lists drawn up by the Council

in the 1670s, illustrating their view as to which members were more or less useful. First, it is necessary to dispose of various lists that appear in the Council minutes at this time in connexion with the attempted reform of the Society, including one of Fellows to whom application was made to sign the new bond for payment of subscriptions in 1674, another of those sent a letter concerning the bond in January 1675 and a third of those asked for a positive answer as to whether they would sign it later in the same year (187). I have examined the composition of these lists, but none of them seems of sufficient significance to be analysed here—the first two comprise a cross-section of the Society from the point of view of regularity of paying, while the third is a selection of those in arrears to a greater or lesser extent—and I have not entered them into the Catalogue. More important is a list of Fellows to whom application was made for an experimental discourse in 1674 (188), which I have again not entered since it refers to too restricted a portion of the membership, although its content is not without interest. It mainly consists of such active Fellows as Wren (F12), Croone (F20), Evelyn (F38), King (F212), Walter Needham (F230) and Collins (F235); there are also some fairly active ones like Holder (F39), George Smith (F120) and Browne (F248), and one, Pope (F72), who had been active in the 1660s but barely since. Slightly unexpected is the inclusion of Wylde (F44) and Vossius (F164), otherwise not very active, and Bernard (F297), recently elected and entirely inactive.

This brings us to the main group of evaluative lists, to which a column has been devoted in the Catalogue, since the information that they provide is both highly significant and equally applicable to the entire membership. One of these was entered into the Council minutes of 22 October 1673, compiled after the Council had ‘consulted the treasurer’s book concerning the persons, that may be looked upon as good paymasters’ (189). It contains fifty-nine names, and is almost identical with a manuscript list in a volume of Royal Society papers now in the British Library, except that the latter lacks two names that the former contains, while two names that appear in both were erased in the Council minutes and therefore do not appear in the version printed by Birch (190). The British Library list is merely entitled ‘Persons selected’, but with it is a second list of thirty-two names that was not included in the Council minutes, entitled ‘Others to make up the number of 70 or more’: it was perhaps compiled at the behest of William, Viscount Brouncker, who suggested at the meeting ‘that it was necessary to secure first of all the anniversary elections, at which there must be present thirty-one fellows; and therefore such a number of fellows must be fixed, as might be likely to afford such a number of electors’—an interesting illustration of the importance of attendance by ordinary members in constitutional terms (191). Together, these lists evidently comprise the Council’s view of which members would be retained if all but the most useful were to be discarded.

If so, their basis is not entirely comprehensible. The list of fifty-nine names certainly contains almost all the most regular subscribers in 1673, though it omits a few (192). It also, however, includes two active members who were somewhat irregular in paying (193), and three who were neither regular in paying nor active (194). The supplementary list of thirty-two names comprises three absent Fellows who were hardly, if at all, behind in their subscriptions but were not in the first list (195), a few Fellows who were exempted from dues (196), two who were active but heavily in arrears (197), and various others who were behind with their subscriptions by between three and ten years, three of them Fellows who had once been active but had since fallen away (198) and others who were abroad or in the country (though not including all those listed as absent in the separate arrears list of 1673) (199). Also included was Thomas Willis (F90), doubtless because the Society hoped that he would have more to do with them than he had hitherto, and four for whose inclusion no good reason can be adduced (200). Not mentioned in

either list, however, were a number of Fellows who were behind with their subscriptions by between two and five years: if the Society was really prepared to jettison these, it was taking a very doctrinaire view (201).

A third list that is evidently closely related to these two survives as Royal Society Domestic Manuscript V, 39. It contains eighty-four names, most of them those in the two lists just described (fifty from the first and twenty-four from the second). But it omits a few from each and includes ten that appear in neither, four of them members owing between two and five years' dues, one regular subscriber, one absent Fellow, one Honorary Member, two recently elected, and one whose inclusion is impossible to explain (202).

To some extent this list overlaps, in its departure from the first two, with another pair of lists which survive in the volume of Royal Society papers in the British Library, evidently of slightly later date than the others (203). This double list is entitled 'List of members that are likely to promote the dessein of the Royal Society', and its two parts are entitled 'Members that will probably both pay and give yearly one entertainment to the Society' (i.e. the experimental discourses already referred to) and 'Such as will pay and procure an entertainment to be made by others'. The first half (called 'fourth list' in the Catalogue) contains thirty names, the second (called 'fifth list') forty-one. The first (fourth) has many of those in the first of the earlier pair, but it includes a few who there appeared in the second and three who were formerly in neither (one of whom had appeared in the third) (204). The second (fifth) list has more of those in the first of the earlier pair, some from the second, and several who had previously appeared in neither, some of them marginally active but others who had never been active and whose presence is inexplicable (205). Thirteen of those in the first of the earlier pair of lists are in neither here (206).

Some of these discrepancies can be explained in terms of the different intentions of the lists: a few active figures in the fourth list paid badly and thus did not appear in the first, while some of the regular payers in this might have been thought incapable of giving an experimental discourse themselves and so were relegated to the fifth in the second pair, of those merely expected to pay for them. Yet there is inconsistency even in this, since one of these was Edmund Wylde (F44), who was in the short list made in 1674 of those to be positively asked for such a discourse. Moreover the general discrepancies between the different lists show their idiosyncrasy and the difficulties of interpreting them. In the Catalogue I have noted which lists people appeared in, since this illustrates the Council's view of their role in the Society, and since it could provide supplementary information about support, particularly by barely active members. As has already been pointed out, however, it might as well be a tribute to the influence of such Fellows as to their activity, and this evidence should be used with great care.

### 7. *The expulsions*

The reservations that have to be made concerning the evaluative lists of members apply no less forcibly to the lists of those considered for expulsion from the Society in 1666, 1675, 1682 and 1685. In each case (though less so in 1685, when the process begun earlier was almost completed), only some of those deeply in arrears and barely active were ordered for expulsion, and, though some omissions are explicable, others are not. As has already been explained, expulsion was actually accomplished by omitting Fellows' names from the annual printed membership lists, and in fact not all those ordered for expulsion on each occasion were expelled, while some were omitted from the lists although not so ordered, thus adding further complications.



The first expulsions were made in 1666, when the names of six Fellows were listed and marked 'Consider of leaving theis out of the list: and to make an order to leave their arrears out of the accompt' (207). How the six names were selected is far from clear: they were not the six Fellows with the largest arrears at this time (though all were among the larger), and though four of them had been entirely inactive, two, Vermuyden (F64) and Schroter (F110), had occasionally contributed to the Society's proceedings. The selection of such eminent figures as Scarburgh (F40), Denham (F42), Lord Lucas (F54) and Dryden (F121) may have been intended to caution others, but, if so, the inclusion of Vermuyden and Schroter is less easily explained. In any case, the Council evidently changed its mind about the latter two, since they were not actually expelled although the others were; Vermuyden (who was thereafter omitted from the accounts) remained in the printed lists until 1672 and Schroter (thereafter exempt) until 1685.

The next group of expulsions was made in 1675, when ten Fellows were formally named in the minutes in this connexion (208). Again, the mode of selection is puzzling, since many members with huge arrears were ignored. It is conceivable that the selection shows a deliberate policy on the part of the Society, intended to warn once-active Fellows who were falling behind in their dues and attendance of the consequences of this rather than to impress Fellows who had never taken the slightest interest in the Society's proceedings. Several of the Fellows selected were physicians, civil servants and others who had been active or at least paid their subscriptions at one stage but not lately, rather than courtiers and aristocrats who had never paid or done anything. They included Henry Slingsby (F14), who had once been very active, Edmund Waller (F43), active only in the 1660s, Sir Edward Bysshe (F122), who had paid his dues regularly at first, James Carkesse (F162), who had subscribed until about 1670, Richard Lower (F234), active only in 1667–1668, when he first joined the Society, and John Downes (F247), who had paid his dues in the 1660s but not since. The remainder of the list, however, comprised Fellows who had hardly ever, if at all, been either active or regular, including Sir Peter Pett (F45), Sir Thomas Nott (F80), David Bruce (F134) and Thomas Colepeper (F263). It is also possible that the selection was symptomatic of the Society's weakness at this time, since few of those considered for expulsion were of great social consequence, in contrast to the prominent figures of whom examples were made in the Society's stronger days in 1666. The absence of aristocrats is striking, and Colepeper had actually sold up his family estates in 1675, living thereafter a career of ineffectual projecting, while Carkesse had been consigned to Bedlam.

As in 1666, not all those considered for expulsion were actually expelled—Waller remained on the lists until 1682 and Bysshe until his death in 1679—while a few Fellows were quietly dropped from the lists at this time although not officially ordered for expulsion in the Council minutes. In the accounts for 1675 several members were marked 'out' and were thereupon omitted from the lists, and, though several of these were among those ordered for expulsion by the Council (209), two were not: Sir George Ent (F31) (marked in the account as 'gone off') and Thomas Harley (F228). Another Fellow, Francis Potter (F130), who was not so marked in the accounts, was also quietly omitted from the lists at this time, as were two further members in 1678, Sir Elisha Leighton (F154) and Malachy Thrustone (F200) (210).

A surviving manuscript draft illustrates the uncertainties lying behind the list printed by Birch of twenty-three Fellows considered for expulsion in 1682 (211). Concerning the Earl of Ranelagh (F84), the draft notes 'consult Mr. Boyle', while beside the name of Francis Smethwick (F226) is the word 'quaere'; there is also an erased name that I have been unable to identify (212). Here, as before, it is not clear how those ordered for expulsion were selected from the larger number of members with sizeable arrears who showed no sign of activity. Again, some of those



ordered for expulsion were not in fact removed from the printed list—the minutes note that the list had been compiled ‘with reservation to make amendments at the next meeting’ (213)—and two Fellows were omitted from the printed list although not ordered for expulsion, William Hammond (F70) and Edmund Castell (F310), the latter possibly accidentally, since he was not in arrears.

Only with the largest group of expulsions ever made, that of 1685, was anything approaching a clean sweep made of inactive members who were badly in arrears: indeed, a few members who were removed from the printed lists at this time had to be replaced a few years later (214). As before, not quite all those who were omitted from the printed lists were named by the Council as liable for expulsion (215) and not all of the forty-eight listed in the Council minutes were actually expelled, though in these cases there were good reasons why the members in question were allowed to remain in the Society despite their arrears, for all were eminent in some way—Gilbert Burnet (F161), a prominent divine, Henry Clerke (F237), President of Magdalen College, Oxford, and Sir William Soame (F242), a diplomat.

If stock is taken of Fellows not even threatened with expulsion in 1685 although heavily in arrears, these fall into predictable classes. Several were active members, such as Thomas Povey (F47), Sir Joseph Williamson (F101), John Creed (F155), Daniel Coxe (F189), Sir Theodore de Vaux (F197), Sir Edmond King (F212), Martin Lister (F288) and Frederic Slare (F369). Others were diplomats (216), Fellows living in Oxford, Dublin or the provinces (217), and a few prominent churchmen and aristocrats, presumably retained more as inactive patrons than as contributing members in the normal sense, an impression borne out by the fact that several of them were thereafter omitted from the accounts (218). There were also, not surprisingly, a few recently elected Fellows who subsequently proved to be neither active nor regular subscribers (219). Apart from this, however, the expulsions had by this time cut the bulk of the dead wood out of the Society.

Speculation as to how Fellows were selected for expulsion before 1685 is largely futile. Expulsion was a final and radical way of treating inactive and non-contributing members to which the Society was unwillingly driven as a last resort. The fact that arrears were the Society’s objective ground for expelling members did not mean that all sorts of other considerations were not taken into account, and any hope of greater contribution in future was likely to persuade the Council to refrain from this step. It is clear, for instance, that William Winde (F113) was retained in the membership list in 1682 although ordered for expulsion because, when approached about arrears, he implied that he might pay (though in fact he did not) (220). As far as others in arrears were concerned, many, when dunned, replied regretting their debts, questioning only the precise figure named, and expressing their intention of paying. Even reactions like that of Edmund Waller—who ‘put it off with an expression of merriment, that he thought it best to forget and forgive one another for what was past, and to begin upon a new score’ when approached about the new bond in 1674/5 (221)—suggested a hopeful intention of mending things in future. Whenever the Council considered expelling those deepest in arrears they always added the proviso ‘and gave no hope of being of use to the Society’ (222).

There must also have been subtler reasons, few of which can be adequately reconstructed, as will be familiar to any who have since had to consider similar steps in comparable institutions. For one thing, active members were often heavily in arrears, which made it less easy to criticize others, and among those who were active in the campaign against arrears in the 1670s were two who were deeply in debt themselves (223); similarly, in the 1680s doubts were expressed about the number of Fellows who were exempted from paying subscriptions, on the grounds that

this was unfair to those who were not (224). From another point of view, John Beale had reservations on principle about expelling any member once he had been admitted, least of all 'before much endeavour is used to reclaim him; & to remove all miss-understandings' (225). There were doubtless those on the Council who expressed similar views, quite apart from the fact that the arguments for retaining distinguished members on the printed lists in order to enhance the respectability of the new philosophy must have remained as seductive as ever.

Moreover, the sort of petty misunderstandings that those threatened with expulsion could claim in their favour are obliquely illustrated by a surprising and fortunate survival, Benjamin Woodroffe's reply to the Society's request to members to sign the new bond guaranteeing payments in 1675. In a letter to Sir Robert Southwell, Woodroffe claimed that the request had only just arrived, although it demanded a reply by a few days previously. 'This is not the first neglect their officers have been guilty of to me and others', he continued, 'I having for a while received no summons, though upon the place on such occasions as they have been given out to others, so that I have long since esteemed myself as not of the Society, nor shall I therefore at all look back to what is past, although as to the ends of the Institution I am so far from being an enemy to them that I should be glad to contribute far more to promote them than the penal bond obliges me to' (226). Doubtless when faced with expulsion many pleaded similar more or less legitimate extenuating circumstances.

As all these qualifications show, there are too many complications for expulsion to be more than a partial guide to the usefulness of members of the Society. Only when this evidence is collated with fuller information from all surviving sources can reliable conclusions be reached concerning the more or less important role of different Fellows in the Society's development.

#### 8. *Foreign and absent members*

Foreign members are so designated in the column devoted to the financial affairs of Fellows, since they were exempt from payment of subscriptions. A brief word of explanation is needed, since by 'Foreign members' I do not mean foreign émigrées in England like Oldenburg (F33), Haak (F93) or Clüver (F346), some of whom paid subscriptions while others were exempted for their services to the Society, but foreign scientists and others who were hardly ever, if at all, in England. Some of these were elected in recognition of their scientific work (for instance Huygens (F139) or Cassini (F293)), some because they were recommended to the Royal Society (as with Antonio Alvares da Cunha (F257), proposed by Southwell (227)), and some merely because they happened to attend a meeting, as in the case of Vital Dumas (F202) and Hugues Louis de Lionne (F203) in 1665, for example, or the Moroccan ambassador in 1682 (F395). It should perhaps be pointed out that, as with his English correspondents, few of Oldenburg's foreign correspondents were ever elected to the Society.

From 1682 onwards Foreign members are separated from English ones in the printed membership lists, and before this it is usually clear which members were foreign. There are, however, a few loose ends. Two of those included as foreign in the lists after 1682 were in fact living in London and active at the Society's meetings, Henri Justel (F393) and Denis Papin (F399), and I have therefore not designated them as foreign in the Catalogue. Nor have I so designated William Schroter (F110), although he is classified as foreign in the lists from 1682 on: as we have seen, he was slightly active and almost expelled for arrears in 1666, and the references to him in Birch suggest that he was sometimes in London and travelled fairly frequently between England and the Continent. Other uncertain cases are Ubaldini (F243), whom I have counted as a Foreign member, and von Munchausen (F413), whom I have not: since he never appeared in

the printed lists it is not clear whether he was naturalized or not, but the fact that he paid subscriptions (at a reduced rate) suggests that he was living in England, and he may have been in this country as early as 1673 although not elected until 1684 (228). Vossius (F164) was 'foreign' until 1670, when he came to England, and Mercator (F215) became 'foreign' in 1682, when he left England for France.

As far as English members are concerned, the reader will have noticed several passing references to 'absent' or 'provincial' Fellows, who are obviously unlike metropolitan ones, and he may have wondered why I have not tried to differentiate them in some way in the Catalogue, since they would clearly not be expected to be 'active' in the same way as those living in London. Obviously the minutes would hardly reflect evidence of their contribution to the Society's business apart from occasional letters, and even normal subscriptions might seem slightly unreasonable, since, as John Wallis pointed out when reporting to Oldenburg his activity in dunning fellow F.R.S.s Ralph Bathurst and Henry Clerke at Oxford in 1675, being rarely in London they received little benefit from the Society and 'it seemes a little hard that having been scarce there this six year, to pay as those that be there constantly' (229).

The difficulty is that any such blanket term as 'provincial member' would hide a great deal of significant variety. The most obvious class comprises the relatively small number who evidently lived almost exclusively in the country, visiting London only very rarely—Sir William Persall (F53), Henry Power (F104), John Beale (F128), Francis Potter (F130), John Newburgh (F168), Joseph Glanvill (F175), Martin Lister (F288) (when originally elected), Malachy Thrustone (F200), Andrew Birch (F305), Thomas Baker (F417), John Beaumont (F424) and Charles Leigh (F425). As we have already seen, these were provincial virtuosi elected either for their eminence or for reasons less easily divined, and they were genuinely 'provincial': the most they could hope to do for the Society was to keep in touch by letter, like Charles Leigh, who promised when elected that he would 'to the Utmost of my Capacity give you an account of the Naturall Curiosities here' (230).

Even these 'provincial' Fellows seem to have been in London very occasionally, however: Sir William Persall attended a few meetings in 1661–1662, for instance; John Newburgh was sometimes in London (231); and most of them were admitted Fellow in person (in fact, all but the last three in the list above, and though Leigh was never admitted his letters show that he hoped to be (232)). The same applies to another class of non-metropolitan Fellows, those university dons who became Fellows but whose chief preoccupations kept them away from London—at Oxford, John Wallis (F57), Ralph Bathurst (F149), Henry Clerke (F237), Edward Bernard (F297), Robert Plot (F332), Thomas Smith (F333), John Mayow (F343), Robert Pitt (F404), William Gould (F405) and William Musgrave (F412); at Cambridge, Henry More (F114), Isaac Barrow (F115), Ralph Cudworth (F116), Isaac Newton (F290), Edmund Castell (F310) and Nathaniel Vincent (F410); and at St Andrew's, James Gregory (F264) (one might add those members of the Dublin Philosophical Society who were elected to the Royal Society in the 1680s, Allen Mullen (F408), Charles Willoughby (F409) and Sir Richard Bulkeley (F426)). All these were in London at least occasionally—only Mayow, Cudworth and Mullen were never admitted—while others were there frequently, even, in the case of Wallis or Plot, enough to play an important part in the running of the Society.

Moreover, though such classes are relatively clear, a spectrum opens out between these Fellows and those who are known to have been based wholly on the metropolis. As has already been explained, many Fellows who lived in London much of the year also had country estates and commuted between the two at different times of year, so that they should perhaps be

classified as 'absent' during their vacations. Between this group and the 'truly' provincial, and overlapping with both, is an intermediate group of members who were not infrequently in London but more often in the country. Thus Sir George Croke (F325), for instance, is shown by his letters to Oldenburg before his election as a typical country virtuoso, developing his scientific interests deep in Oxfordshire and requesting Oldenburg to send him the necessary books and equipment; but he occasionally refers briefly to recent visits to London (233). Others who were evidently sometimes in London but more often in the country include the Duke of Devonshire (F28), Sir James Long (F94), Edward Cotton (F131) and Thomas Neale (F165).

Related to these are a class of Fellows who were evidently frequently in London at the time when they were elected, but subsequently retired to the country. The Earl of Crawford and Lindsay (F137), for instance, retired from public life to his Scottish estates in 1663; William Ball (F9) increasingly lived in Devonshire after about 1665; while Edmund Waller (F43) is known to have spent most of his time on his estate at Beaconsfield after 1677. To these might be added those who went abroad on diplomatic missions for longer or shorter periods, including Thomas Henshaw (F15), Sir Paul Rycaut (F220) and Sir William Soame (F242), while some were often in Ireland, such as Sir William Petty (F8) or Sir Robert Reading (F287). Similarly, Sir John Finch (F65) and Thomas Baines (F66), who were in England at the time of their election, subsequently went abroad again, and Thomas Coxe (F23), for example, is said to have died a bankrupt in France.

Matters would be simpler if the Royal Society had had a consistent policy in dealing with absent members, which would enable some classification to be based on the Society's records. Doubtless reflecting the variety of reasons for absence just outlined, however, the Society tended to take a piecemeal line towards such absentees, sometimes exempting them or half-exempting them from subscriptions and sometimes not: such exemptions have been listed above, but several Fellows who were clearly 'absent' were never let off subscriptions, including Potter, Newburgh, Thrustone, Clerke and Castell, and only in the 1680s did the Society make a consistent ruling on a related subject, ordering that members of the Oxford and Dublin Philosophical Societies who were also F.R.S.s need only pay half the normal dues (234). The nearest that the Society came to evaluating its membership from this point of view is the list of 'Arrears due . . . from absent members' made in 1673 and already referred to (235). Because of its interest in the present connexion, I have inserted the information contained in this into the Catalogue, marking the Fellows named in it as 'absent' in the column devoted to status in the 1670s lists.

It contains several of the names just given of fully provincial members, Oxbridge dons, diplomats and 'retired' Fellows, and it also includes some whom one would not otherwise have had evidence for placing in this category, including Sir Thomas Nott (F80), Sir Francis Fane (F117), Anthony Lowther (F133) and Samuel Woodford (F169). On the other hand, its basis of selection is not clear, since members like Henry Clerke, who were clearly 'absent', were placed in the main arrears list that it supplemented. Others may lurk there, while any Fellows who were not in arrears although absent would not, of course, be expected to appear. Though it is a helpful indication, it should be regarded as no more than this: at most, its relative shortness in comparison with the total membership underlines the extent to which the Society was always focused on London.

Apart from this rather unsatisfactory list, information as to where Fellows spent their time is only available from biographical sources, and it is therefore as uneven as those sources. In each case a miniature biography is needed to show whether any particular Fellow was inactive

because he was incurious or because he was rarely in London, or whether his activity fluctuated due to his retirement from London circles or his loss of interest in the Society's work. In a few cases the brief biographical notes in the Catalogue may help to elucidate this, but with more minor Fellows such detail could often only be guessed at, and, for the sake of consistency, I have therefore refrained from differentiating 'provincial' from 'London' Fellows. The Catalogue is only intended to illustrate which Fellows were active, which were not, and when: only incidentally and haphazardly does it illustrate why.

## APPENDIX II

### THE PLAN FOR A COLLEGE, 1667-1668

Considering its potential implications for the early development of the Royal Society, this attempt to raise funds to build a special premises for it south of the Strand is surprisingly little known and a fuller account of it than has appeared hitherto would be justified in its own right. It is relevant here because all Fellows were invited to subscribe and a certain number promised varying sums of money, thus supplying extra evidence of support for the Society; though there were also hopes for contributions from non-members (236), these were, with one exception, entirely disappointed.

The background to the project, which is first heard of in the autumn of 1667 (237), was the instability that the Society felt even in the late 1660s. In Oldenburg's view, a college would 'fixe us (who are now lookt upon but as Wanderers, using precariously the lodgings of other Men) in a certain place, where we may meet, prepare and make our Experiments and Observations, lodge our Curators and Operators, have our Laboratory, Observatory and Operatory all together' (238). He and others considered it essential to the Society's well-being, 'a means very probable to establish their Institution to perpetuity' (239), and the motives behind the scheme were elaborated when subscription forms were drawn up in November, which people were to sign, 'being satisfied of the great usefulness of the institution of the Royal Society, and how requisite it is for attaining the ends designed thereby, to build a college for their meetings, and to establish some revenue for discharging the expenses necessary for trial of experiments' (240).

The fund-raising efforts begun late in 1667 were intensified in January 1668, when the subscription forms were ordered to be printed and a list prepared of Fellows who were thought to be 'both willing and able to contribute to the said building', who were divided into groups to be solicited by members of a specially appointed committee (241). I have not bothered to analyse this list here, since it says more about the Society's optimistic hopes than about any actual support given by those whose names appeared in it, nor shall I deal with such hoped-for donations as were reported in the minutes and in Oldenburg's letters to Boyle but which never materialized (241a). More important are the promised contributions entered into the special volume provided for the purpose, which still survives as MS. 352 in the Society's library, bound in gilt-stamped vellum and inscribed 'Contributions towards Building the College', in which, as Oldenburg explained to a correspondent, the names of benefactors were to be registered 'and thereby perpetuated to all posterity, as they shall well deserve, that doe assist according to their severall Abilitys, to render England the Glory of the Western World, by making it the Seat of the best knowledge, as well as it may be the seat of the greatest Trade' (242).



All of those who were entered into the volume for their promise of financial assistance were Fellows except one, Silas Taylor, who promised £10 and whose association with the Society is discussed on pages 12–13 above. In general, the contributors were predictable, comprising members who were both active and regular in their subscriptions and others who were equally regular in paying but whom the minutes show as somewhat less active. Only one was falling behind with his annual dues, Henry Powle (F27), while one was not normally expected to pay any dues at all, Oldenburg (F33) himself. It is notable that the subscribers included Sir John Banks (F272), elected on 10 December 1668, which shows that funds for the College were still being collected late in that year, although nothing more is heard of it in the minutes after August (243).

For though the positive evidence afforded by such members' offers of financial assistance is interesting, it would be rash to conclude too much from the failure of others to contribute. In the event, the College was never built (and the subscriptions therefore never collected), although the site was promised by Henry Howard (F218), £1075 pledged as subscriptions apart from 50 000 bricks offered by John Evelyn, and elaborate plans drawn up by Robert Hooke, Howard himself and Sir Christopher Wren (the latter, which are outlined in a surviving letter, illustrating clearly the grand scale on which the College was evidently conceived) (244). One reason for this was probably the Society's concern about the security of tenure of the site, which was entailed under an act of Charles I (245), but perhaps more important was the disappointing response of Fellows to the request for funds. For although a space was left beside the name of every Fellow in MS. 352 in evident hope of widespread contribution, only twenty-six out of more than 200 members promised anything, and the total raised was only half the amount thought by Wren to be necessary to make a start on the imposing building that he projected (246). In fact, there seems to have been a considerable difference of opinion among Fellows as to the desirability of a College at all. Like Oldenburg, Evelyn was enthusiastic about the plan, and it was his conviction that 'we shall repent of' the failure to implement it (247). But not even all those on the committee for soliciting subscriptions bothered to contribute, nor did all the active members of the Council for the year (248), which suggests that many did not agree so wholeheartedly, and as for the rank and file of members the most interesting remark about the whole business is Pepys's. Pepys noted in his *Diary* how he and others were forced to subscribe, 'but', he continued, 'several I saw hang off: and I doubt it will spoil the Society, for it breeds faction and ill-will, and becomes burdensome to some that cannot, or would not, do it' (249).

Conclusions about Fellows' failure to contribute to this project should therefore be judicious, and I have not devoted a column in the Catalogue to contributions, partly for this reason and partly because so few contributed that it seemed wasteful of space. The sums promised were as follows:

William, Viscount Brouncker (F1)	. . . . .	£100
Robert Boyle (F2)	. . . . .	£50
Sir Robert Moray (F4)	. . . . .	£80
John Wilkins (F6)	. . . . .	£50
Jonathan Goddard (F7)	. . . . .	£20
Thomas Henshaw (F15)	. . . . .	£20
Matthew Wren (F21)	. . . . .	£50
Henry Powle (F27)	. . . . .	£20
Earl of Devonshire (F28)	. . . . .	£5



Seth Ward (F29)	. . . . .	£100
Henry Oldenburg (F33)	. . . . .	£10
John Evelyn (F38)	. . . . .	50 000 bricks
Daniel Colwall (F48)	. . . . .	£100
Sir Cyril Wyche (F83)	. . . . .	£50
Theodore Haak (F93)	. . . . .	£10
Francis Willughby (F95)	. . . . .	£80
Sir Joseph Williamson (F101)	. . . . .	£50
Sir Robert Southwell (F107)	. . . . .	£50
Sir James Hayes (F111)	. . . . .	£40
Samuel Pepys (F187)	. . . . .	£40
Sir Theodore de Vaux (F197)	. . . . .	£25
Henry Howard (F218)	. . . . .	The site
Philip Skippon (F227)	. . . . .	£20
Sir Nicholas Stewart (F238)	. . . . .	£50
John Colwall (F262)	. . . . .	£80
Sir John Banks (F272)	. . . . .	£20

## ABBREVIATIONS

<i>Allg. Deutsch. Biog.</i>	<i>Allgemeine Deutsche Biographie</i> , 56 vols. (1875–1912)
<i>Ang. Notit.</i>	Edward Chamberlayne, <i>Angliae Notitia</i> (1669, and subsequent editions)
Bulloch	‘Roll of the Fellows of the Royal Society’, compiled by William Bulloch, M.D., F.R.S. (kept in the library of the Royal Society)
Beaven	A. B. Beaven, <i>The Aldermen of the City of London</i> , 2 vols. (1908–1913)
Birch	Thomas Birch, <i>The History of the Royal Society of London</i> , 4 vols. (1756–1757)
CSP Dom	Calendar of State Papers (Domestic)
Cl.P.	Royal Society Classified Papers
DM	Royal Society Domestic Manuscripts
DNB	<i>Dictionary of National Biography</i> , 63 vols. (1885–1900)
DSB	C. C. Gillespie <i>et al.</i> , ed., <i>Dictionary of Scientific Biography</i> , Vol. 1–(in progress) (1970– )
Davies	K. G. Davies, <i>The Royal African Company</i> (1957)
EL	Royal Society Early Letters
E.S.O.	R. T. Gunther, ed., <i>Early Science in Oxford</i> , 14 vols. (1923–1945)
E. India Co. Court Mins.	E. B. Sainsbury, ed., <i>Calendar of the Court Minutes of the East India Company</i> (1907–1938)
Evelyn Diary	E. S. de Beer, ed., <i>The Diary of John Evelyn</i> , 6 vols. (1955)
F.R.C.P.	Fellow of the Royal College of Physicians
Foster	J. Foster, ed., <i>Alumni Oxonienses 1500–1714</i> , 4 vols. (1891–1892)
GEC	G. E. Cokayne, <i>Complete Peerage</i> , new ed., 14 vols. (1910–1959)
GEC Bar.	G. E. Cokayne, <i>Complete Baronetage 1611–1800</i> , 6 vols. (1900–1909)

H.M.C.	Historical Manuscripts Commission
Hoppen	K. T. Hoppen, <i>The Common Scientist in the seventeenth century</i> (1970)
Innes Smith	R. W. Innes Smith, <i>English-speaking students of medicine at the University of Leyden</i> (1932)
JBO	Royal Society Journal Book (Original)
K.B.	Knight of the Bath
K.G.	Knight of the Garter
LBO	Royal Society Letter Book (Original)
<i>Mid. Temp. Adm. Reg.</i>	H. F. MacGeagh and H. A. C. Sturgess, <i>Middle Temple Admissions Register</i> , I (1949)
Munk	W. R. Munk, <i>The Roll of the Royal College of Physicians</i> , new ed., 3 vols. (1878)
N. & Q.	<i>Notes and Queries</i>
N. & R. R. S.	<i>Notes and Records of the Royal Society</i>
<i>Nouv. Biog. Univ.</i>	<i>Nouvelle Biographie Universelle</i> , 46 vols. (1852–1866)
O.F.	Original Fellow
Oldenburg	A. R. Hall and M. B. Hall, eds., <i>The Correspondence of Henry Oldenburg</i> , Vol. 1– (in progress) (1965– )
P.C.	Privy Councillor
R.C.P.	Royal College of Physicians
Raven Ray	C. E. Raven, <i>John Ray, Naturalist</i> (2nd edition, 1950)
Shaw	W. A. Shaw, <i>The Knights of England</i> , 2 vols. (1906)
Sprat	Thomas Sprat, <i>History of the Royal Society</i> (1667), J. I. Cope and H. W. Jones, eds. (1959)
Taylor	E. G. R. Taylor, <i>The Mathematical Practitioners of Tudor and Stuart England</i> (1954)
V.C.H.	Victoria County History
Venn	J. and J. A. Venn, <i>Alumni Cantabrigienses</i> (to 1751), 4 vols. (1922–1927)
Ward <i>Lives</i>	J. Ward, <i>The Lives of the Professors of Gresham College</i> (1740)
Whitcombe	D. T. Whitcombe, <i>Charles II and the Cavalier House of Commons</i> (1966)
Woodhead	J. R. Woodhead, <i>The Rulers of London, 1660–1689</i> (1965)

## NOTES

I am indebted to the following for help in the preparation of this article: to the editor of the *Notes and Records*, Professor W. D. M. Paton, for encouragement, criticism and the provision of the prodigious amount of space that it occupies; to Dr E. S. de Beer, Professor A. R. and Mrs M. B. Hall, Dr Lotte Mulligan, Mr Anthony Turner and Dr Charles Webster for help with biographical identifications and to Dr E. G. Forbes, Mr P. S. Laurie and Mr R. M. D. Winder, Archivist of Hoare's Bank, for help on specific biographical points; to Dr R. G. Frank and Mr Lindsay Sharp for showing me their unpublished writings on related topics; to Professor and Mrs Hall, Professor Paton and Mr Sharp for scrutinizing and commenting on drafts of the text and Catalogue; and to the Librarian of the Royal Society for photocopies.

- (1) Vernon-Oldenburg, 1 May 1669, Oldenburg, Vol. V, p. 507.
- (2) See Table 2.
- (3) L. S. Feuer, *The Scientific Intellectual. The Psychological and Sociological Origins of Modern Science* (1963), pp. 75 and 420–424.
- (4) Lotte Mulligan, 'Civil War Politics, Religion and the Royal Society', *Past and Present*, 59, 92–116 (1973), reprinted in Charles Webster, ed., *The Intellectual Revolution of the Seventeenth Century* (1974), pp. 317–346.
- (5) *Ibid.*, p. 97.
- (6) Sprat, pp. 62–67, 129.
- (7) Cf. Quentin Skinner, 'Thomas Hobbes and the nature of the early Royal Society', *Historical Journal*, 12, 217–239 (1969).
- (8) For some possible examples, see *ibid.*, p. 236: it is interesting that most of these were based out of London.
- (9) Cf. Charles Webster, 'Richard Towneley (1629–1707), the Towneley Group and seventeenth-century Science', *Trans. Hist. Soc. Lancs. & Cheshire*, 118, 51–76 (1966).
- (10) See Raven Ray and Michael Hunter, *John Aubrey and the Realm of Learning* (1975).
- (11) See *ibid.*, pp. 43, 64.
- (12) Oldenburg-Huygens, 6 Sept. 1669, Oldenburg, Vol. VI, p. 223.
- (13) Jessop-Lister, 3 Feb. 1674, Bodleian Library, MS Lister 34, 85.
- (14) See below, pp. 58–60.
- (15) M. 'Espinasse, 'The Decline and Fall of Restoration Science'. *Past & Present*, 14, 86 (1958) (reprinted in C. Webster, *ed cit.* (note 4), p. 367).
- (16) Cf. Taylor, pp. 225–226, 207–208, 229, 220–221. On Bond, cf. Birch, Vol. I, p. 104; on Thompson, Charles Webster, *The Great Instauration* (1975), p. 91.
- (17) See below, p. 43, and F255.
- (18) Cf. W. H. G. Armytage, 'The Royal Society and the Apothecaries, 1660–1722', *N. & R. R. S.*, 11, 24 (1954); M. C. W. Hunter, 'The Royal Society and the origins of British archaeology', *Antiquity*, 65, 115 (1971); Birch, Vol. III, pp. 51, 54; *N. & R. R. S.*, 8, 150 (1951).
- (19) Cf. Birch, Vol. I, pp. 266–267, 270, 272, 280, 281, 293, 310, 346, 447, 448, 456, 460, 483, II, 115, 262; see also Cl.P. II, 2, and X (1) 4, and Taylor-Oldenburg, 14 July 1663, Oldenburg, Vol. II, p. 81. On the projected College, see Appendix II.
- (20) Cl.P. III (1) 59. The list also includes Sir Edward Walpole, on whom see Whitcombe, p. 210. On Hale, see Edmund Heward, *Matthew Hale* (1972), esp. pp. 124–126.
- (21) Cf. *Philosophical Transactions*, 6, no. 79, 3056–3058 (1672), and various letters of 1672–1673 in Oldenburg, Vol. VIII, pp. 417, 429, 445, 468, 506–507, 530, 539, 573, 592, Vol. IX, pp. 37, 54, 431. On Morland, see H. W. Dickinson, *Sir Samuel Morland* (1970).
- (22) Birch, Vol. IV, p. 328. Cf. *Evelyn Diary*, Vol. IV, pp. 531–532. Courten's papers are in the Sloane collection in the British Library; see especially MS. Sloane 3987.
- (23) Macaulay, *History of England*, Vol. I (1849), p. 406.
- (24) Roger North, *The Lives of the Norths*, A. Jessopp, ed. (1890), Vol. I, p. 374.
- (25) Birch, Vol. II, p. 261, Vol. IV, p. 328. Other London physicians who never joined the Society are discussed by Skinner, *art. cit.* (note 7), pp. 236–237, though he is wrong in claiming that Millington and Napier were Fellows and that Dickinson (F340) was not.
- (26) Birch, Vol. I, p. 322. Cf. *ibid.*, Vol. I, pp. 5, 115.
- (27) Cf. Winthrop-Oldenburg, Sept. 1671?, Oldenburg, Vol. VIII, p. 265.

- (28) Palmer–Oldenburg, 12 Dec. 1667, *ibid.*, Vol. IV, p. 34.
- (29) Stiernhelm–Oldenburg, 17 May 1670, *ibid.*, Vol. VII, p. 16.
- (30) Musgrave–Aston, 27 March 1684, LBO IX, p. 150.
- (31) This is taken from an incomplete letter dated Salisbury, 2 Sept. 1665, probably from Lord Cornbury to Evelyn, to be found loose in a box marked ‘Evelyn Period Letters A–G’ in the Evelyn Collection at Christ Church, Oxford. I quote this and all Evelyn MSS mentioned hereafter by kind permission of the Trustees of the Will of the late J. H. C. Evelyn.
- (32) ‘Proposals for the Advancement of the Royal Society’, DM V, 12.
- (33) [Richard Graham, Viscount Preston], *Angliae Speculum Morale* (1670), p. 45.
- (34) Skinner, *art. cit.* (note 7), p. 238.
- (35) D. C. Coleman, *Sir John Banks* (1963), pp. 136–139.
- (36) Birch, Vol. III, p. 127.
- (37) Webster, *ed. cit.* (note 4), p. 21.
- (38) Webster, *op. cit.* (note 16), p. 89f.
- (39) Cf. Birch, Vol. I, pp. 377, 379.
- (40) See Birch, Vol. I, pp. 168–169; DM V, 36; and Southwell–Oldenburg, 26 April 1663, Oldenburg, Vol. II, pp. 48–50 and note, and 15 May 1663, *ibid.*, Vol. II, pp. 52–55.
- (41) Details of this affair will be found in Birch, *passim*.
- (42) Birch, Vol. II, p. 386. The only substantial endowment that the Society received in this period (until the King bought back Chelsea College in 1682) was Wilkins’s bequest of £400 in 1674; cf. Sir H. Lyons, ‘The Society’s First Bequest’, *N. & R. R. S.*, 2, 43–46 (1939).
- (43) Birch, Vol. I, p. 415.
- (44) Grew–Oldenburg, 13 Sept. 1671, Oldenburg, Vol. X, p. 200. Others mentioned include Lord Berkeley (F34) and Pepys (Fr87). See also Birch, Vol. III, pp. 42, 69–70.
- (45) Sprat, pp. 433–434.
- (46) DM V, 12.
- (47) Hoppen, pp. 86–87.
- (48) DM V, 34.
- (49) DM V, 1.
- (50) Cf., for instance, William Ball–Oldenburg, 14 April 1666, Oldenburg, Vol. III, pp. 91–93.
- (51) William Petty’s memorandum on the Royal Society, Bowood, Petty Papers, MS. 37, Box H (‘Royal Society’), Folder 2, ii, h. I am indebted to Mr Lindsay Sharp for supplying me with a transcript of this document.
- (52) Cf. M. ‘Espinasse, *Robert Hooke* (1956), pp. 4, 83.
- (53) On the sources of Oldenburg’s income, see the Halls’ notes in Oldenburg, Vol. II, pp. xxiv–xxvi, Vol. IV, pp. xxiv–xxv, Vol. V, pp. xxv–xxvi, and Vol. VI, p. xxviii.
- (54) Cf. the Society’s accounts, *passim*.
- (55) Cf. R. K. Bluhm, ‘Remarks on the Royal Society’s finances, 1660–1768’, *N. & R. R. S.*, 13, 93–94 (1958), who does not perhaps make sufficiently clear that the proposals were purely hypothetical.
- (56) Note especially that referred to in note 42.
- (57) Oldenburg–Boyle, 10 Dec. 1664, Oldenburg, Vol. II, p. 332.
- (58) Bluhm, *art. cit.*, p. 93.
- (59) Birch, Vol. I, p. 227.

- (60) See below, p. 53.
- (61) On this occasion twenty-three were present (Hooke, *Diary*, 1688–1693, in *E.S.O.*, Vol. X (1935), p. 77; cf. JBO VIII, p. 233).
- (62) Birch, Vol. I, pp. 6, 115, and DM V, 59.
- (63) Cf. Birch, Vol. II, pp. 74, 124, Vol. III, pp. 359, 361, 362, Vol. IV, p. 104. For evidence of an ordinary meeting better attended than any of these, see note 68.
- (64) Cf., e.g., Birch, Vol. II, p. 110, or Oldenburg–Lister, 27 May 1671, Oldenburg, Vol. VIII, pp. 63–64, or Oldenburg–Leibniz, 10 April 1673, *ibid.*, Vol. IX, pp. 582–583 (when there were, however, mitigating circumstances).
- (65) E.g. Birch, Vol. I, p. 293, Vol. II, pp. 386, 431, 436, Vol. III, p. 120, and see Table 3.
- (66) Cf. above, p. 12.
- (67) Hooke, *Diary*, 1672–1680, H. W. Robinson and W. Adams, eds. (1935), p. 257. Cf. *ibid.*, p. 267, where he notes that ‘11 only’ were present.
- (68) *Ibid.*, p. 35 (19 present), p. 74 (14), p. 130 (‘neer 40’), p. 151 (23), p. 272 (15), p. 411 (16).
- (69) *Ibid.*, pp. 74, 267, for lists of all those present, and references, *passim*, to the presence of individual Fellows of which one would otherwise be unaware (e.g., p. 92: Earls of Ailesbury (F56) and Dorset (F196)). For further discussion of the question of attendance, see below, pp. 48–49.
- (70) Sprat, pp. 71–73.
- (71) Wallis–Oldenburg, 15 Oct. 1674, EL W.2.25.
- (72) Oldenburg–Petty, 10 Nov. 1675, Bowood, Petty Papers, MS. 6, section 3, letter 71. I am indebted to Mr Lindsay Sharp for a transcript of this hitherto unknown letter.
- (73) I hope to consider this subject in a fuller study of the audience for science in this period that I am preparing at present.
- (74) Cf. R. G. Frank, ‘Institutional Structure and Scientific Activity in the Early Royal Society’, *Proc. XIV Congr. Hist. Sci.* (1974) (Tokyo, 1975), Vol. IV, pp. 82–101.
- (75) Cf. Oldenburg, Vol. III, xxvii.
- (76) Cf. Sir Henry Lyons, *The Royal Society, 1660–1940* (1944), pp. 49, 64–65.
- (77) Birch, Vol. III, pp. 466, 505, 508; Vol. IV, pp. 56, 75, 79, 85.
- (78) Birch, Vol. III, p. 410 (F341).
- (79) On these lists see below, pp. 53–54.
- (80) Henry Stubbe, *Legends no Histories* (1670), ‘Preface to the Judicious Reader’ (sig. \*3).
- (81) Oldenburg–Boyle, 22 Sept. and 24 Nov. 1664, Oldenburg, Vol. II, pp. 235, 320.
- (82) Cf. Birch, Vol. I, pp. 472, 479, 498, Vol. II, pp. 7, 18, 57.
- (83) Birch, Vol. II, pp. 129–130, 323.
- (84) Oldenburg–Boyle, 24 Feb. and 8 June 1666, Oldenburg, Vol. III, pp. 45, 155.
- (85) Cf. *id.*, 17 Sept. 1667, *ibid.*, p. 476.
- (86) Cf. Birch, Vol. II, p. 265.
- (87) Justel–Oldenburg, early Sept. 1668, Oldenburg, Vol. V, p. 39.
- (88) See above, p. 24.
- (89) Henshaw–Oldenburg, 12 Dec. 1672, Oldenburg, Vol. IX, p. 355.
- (90) *Id.*, 9 Aug. 1673, *ibid.*, Vol. X, p. 129.
- (91) *Loc. cit.*
- (92) Beale–Evelyn, 1 Nov. 1671, Christ Church, Oxford, Evelyn Collection, Correspondence, no. 123.
- (93) Roger North, *op. cit.* (note 24), Vol. I, p. 374.

- (94) The 'Ballad of Gresham College', evidently a reply to satire from fashionable wits, dates from 1663 (cf. D. Stimson, 'Ballad of Gresham College', *Isis*, 18, 103-117 (1932)), and a tract in defence of the Society was already planned in 1663, while Sprat's *History* was partly printed in 1664 although not published till 1667 (cf. Sprat, pp. xii-xiv).
- (95) The importance of coffee-houses in this connexion has been argued by Mr Randall Caudill, of Christ Church, Oxford, in various papers read at seminars in Oxford, none of them yet published.
- (96) Birch, Vol. III, p. 134.
- (97) Birch, Vol. II, p. 496, Vol. III, p. 63.
- (98) Lindsay Sharp, 'Sir William Petty and some aspects of seventeenth-century Natural Philosophy' (Oxford D.Phil. thesis, 1976), chapter 3.
- (99) Birch, Vol. III, p. 176.
- (100) Cf. Sharp, *op. cit.* The Fellows who paid (mentioned in the 1675 accounts) were Brouncker (F1), Earl of Ailesbury (F56) and Sir J. Lowther (F157).
- (101) Birch, Vol. III, p. 510.
- (102) Cf. Birch, Vol. III, pp. 513-514.
- (103) See Table 4. In 1682 'a sufficient number' were present (Birch, Vol. IV, p. 168).
- (104) Cf. Birch, Vol. IV, pp. 118-119, 125-127, 129-131, 133-135, 144-145, 146-147, 159, 160-161, 170, 187. Six Fellows were threatened with legal action, though none was taken to court: of these, two had been active in the 1670s but had since drifted away (Whistler (F49), Milles (F315)), two had never been particularly active though once fairly regular (Coxe (F23) and Arderne (F265)) and two were active members in arrears (Croone (F20) and Allen (F253)). As in 1673-1675, a number of Fellows paid all or part of their arrears as a result of the purge, including Petty (F8), Croone (F20), Whistler (F49), Long (F94), Williamson (F101), Bathurst (F149), J. Hoare, sen. (F167) and Robartes (F306).
- (105) See below, pp. 54-57.
- (106) Birch, Vol. IV, p. 158. Cf. *ibid.*, Vol. IV, p. 121.
- (107) The money involved was that paid by the King for Chelsea College in 1682 (cf. above, p. 17). Cf. the accounts, *passim*, and R. K. Bluhm, *art. cit.* (note 55), p. 91.
- (108) Attendance is rarely recorded, but in 1689 'neer 40' were present (Hooke, *Diary*, 1688-1693, *ed. cit.* (note 61), p. 168), while the number of votes cast for different candidates suggest that at least thirty were present in 1692 (JBO IX, pp. 102-103), thirty-five in 1696 (*ibid.*, X, p. 7), thirty-three in 1698 (*ibid.*, X, p. 89) and thirty-two in 1700 (*ibid.*, X, p. 204). On attendance in 1688, see note 61 above.
- (109) Cf. Hoppen, pp. 210-211.
- (110) Ashe-Southwell, 12 Feb. 1695, EL A.42, and Gould-Aston, 6 March 1683, LBO VIII, p. 298.
- (111) Cf. Council Minutes, Vol. II, pp. 99-108. The Fellows who disappear from the lists after 1699 were Creed (F155), Bagenall (F172), Lane (F341) and Chamberlen (F372); Pope (F72), Locke (F269) and Sambrook (F380) disappear after that for 1698.
- (112) B. Schapiro, 'Debate: Science, Politics and Religion', *Past & Present*, 66, 133-135 (1975). Dr Mulligan (*art. cit.*, note 4) deals with class and occupation to some extent, though her limitation of her study to Fellows aged over 16 in 1642 restricts the usefulness of her conclusions. For an analysis of the whole membership in this period, see A. R. Hall's introduction to his 1968 edition of Birch's *History*, pp. xix-xx.



- (113) Cf. Lawrence Stone, 'Prosopography', *Daedalus*, 100, 46–79 (1971).
- (114) On this distinction, see G. E. Aylmer, *The King's Servants* (1961), pp. 31–32, 281–282.
- (115) On Fellows whose identification is problematic, see below, pp. 43–44. Not all mentioned there have been included as 'unknown' in the statistics, however, since in some cases a Fellow's status is clear even when he has not been completely identified.
- (116) On this theme, cf. David Ogg, *England in the Reigns of James II and William III* (1955), p. 132f.
- (117) Birch, Vol. II, p. 128.
- (118) Cf. Pepys, *Diary*, R. Latham and W. Matthews, eds., Vol. VIII (1974), p. 242.
- (119) Cf. Oldenburg–Leibniz, 10 April 1673, Oldenburg, Vol. IX, pp. 582–583.
- (120) Sprat, esp. pp. 129–30. It is important to stress here how Sprat's talk of support from merchants and citizens was on the whole a reflexion of the Society's hopes rather than its achievement, since his testimony has been cited by modern writers to prove that the Society achieved wide support from merchants which in fact it never attained (e.g. M. 'Espinasse, *art. cit.* (note 15), pp. 86–87). It is revealing how both Sprat (*loc. cit.*) and Hooke (*Micrographia* (1665), sig. glv) hopefully made much of Cutler's generosity but were rather vague about the contribution of other men of traffic; moreover, the small extent of Cutler's contribution to the Society, other than his endowment of Hooke, may be assessed from the Catalogue (F171).
- (121) D. C. Coleman, *op. cit.* (note 35), esp. chapters V and VII.
- (122) FF301–304 and Birch, Vol. III, p. 110. Another 'official' candidate might be Sir Patience Ward (F378), elected while Lord Mayor of London.
- (123) On his election, see Birch, Vol. III, p. 442; on his earlier association, *ibid.*, Vol. I, p. 403. It is probably no coincidence that he was elected the year after his *Mechanick Exercises* was published.
- (124) The slight difference between the totals of those elected given in Table 5 and the figures in Table 1 results from my counting only the second election in cases of double election. To test the statistical significance of group differences or trends in Tables 5–7, a simple  $X^2$  test, or the test for trend given in P. Armitage, *Statistical Methods in Medical Research* (1971) Oxford: Blackwell, p. 362f., were used, taking  $P < 0.05$  as significant. I am indebted to Professor Paton for help in this connexion.
- (125) Lawrence Stone, 'Social Mobility in England, 1500–1700', *Past & Present*, 33, 47 (1966). In support of this, Stone cites the study of Mrs 'Espinasse, whose conclusions on this subject I have questioned in note 120.
- (126) Lyons, *op. cit.* (note 76), p. 341.
- (127) DM V, 45 (draft of a petition to the Queen for a piece of land for a building).
- (128) Council Minutes, Vol. II, p. 105.
- (129) Cf. *ibid.*, pp. 106–107.
- (130) Cf. Birch, Vol. III, p. 114, and Francis Fullwood–Oldenburg, 26 Oct. 1674, EL F.1.131–132.
- (131) Cf. Hill–Bembé, 27 Dec. 1708, British Library MS. Sloane 2902, 50.
- (132) Cf. R. K. Bluhm, *art. cit.* (note 55), p. 93. It is also possible that this is the Blackburne mentioned in Hooke's *Diary*.
- (133) Cf. H. A. Wyndham, *A Family History* (1939).
- (134) Cf. Lannoy–Oldenburg, 6 July 1668, Oldenburg, Vol. IV, pp. 510–513, and Oldenburg–Flower, 21 Nov. 1668, *ibid.*, Vol. V, pp. 201–202.

- (135) British Library MS. Egerton 3252B, 34.
- (136) Cf. the 'Dedication', though see also Evelyn *Diary*, Vol. III, pp. 33n., 595.
- (137) DM V, 63. Bulloch's suggestion that this is the Edward Smith who married Olivia, child of Thomas Pepys, Master of the Jewel House to Charles II, is chronologically quite impossible: cf. E. Chappell, *Eight Generations of the Pepys Family* (1936), p. 64.
- (138) Notably John Austen (F25), Sir William Persall (F53), Edward Nelthorpe (F211), Thomas Lake (F221), Francis Smethwick (F226), William Le Hunt (F254), Esay Ward (F256), and Sir Philip Matthews (F286).
- (139) *Record*, fourth edition (1940), p. 375f. There is one error in this list—the separate entries on pp. 380 and 381 for 'Sir Maurice Berkeley, Kt. and Bt.' (17 Oct. 1667) and 'Fitz-hardinge, Maurice, Viscount' (26 Nov. 1668) in fact refer respectively to the election and admission of the same person (F232)—while Pacichelli (F311) is omitted. Birch has no reference to various elections, as well as several wrong Christian names and dates. It should be noted that of those instanced by Professor Hall (in his edition of Birch (cf. note 112), pp. xxxv–xxxvii) as being expelled but never elected, 'Francis Borthwick' is in fact a misprint in Birch, Vol. IV, p. 159, for Francis Smethwick (F226), while Lord Clifford was a title applied to Charles Boyle, Viscount Dungarvan (F156) and Lord Dursley was a title assumed by Sir Charles Berkeley (F244). The appearance of Philip, Earl of Leicester, in the list of those ordered for expulsion in Birch, Vol. IV, p. 421, however, is an enigma, since no-one of this or a similar name was ever elected; the appearance of the name out of alphabetical sequence in the list could suggest pure error.
- (140) Cf. R. E. W. Maddison, 'The Accompt of William Balle from 28 November 1660 to 11 September 1663', *N. & R. R. S.*, 14, 174–183 (1959).
- (141) Cf. Birch, Vol. I, p. 332 (Willis (F90)), p. 427 (More (F114)).
- (142) Reproduced in facsimile as *The Signatures in the First Journal-Book and the Charter-Book of the Royal Society* (1950).
- (143) Earl of Kincardine (F3), Sir R. Powle (F13), T. Wren (F22), H. Powle (F27), Bate (F30), Denham (F42), N. Henshaw (F51), Hatton (F52), Persall (F53), Lucas (F54), Vermuyden (F64), Sir J. Finch (F65), Baines (F66), Alleyn (F69), Hammond (F70), Duke of Buckingham (F74), Ellis (F77), Stanley (F78), Nott (F80), Sir R. Harley (F81), Jones (F84), Viscount Massereene (F87), Willughby (F95), Winthrop (F98), Brooke (F99), Proby (F100), Stanhope (F103), Schroter (F110), Pett (F112), Fane (F117), Dryden (F121), Cotton (F131), Berkenhead (F138) and Cutler (F171).
- (144) Of the others, Dolben (F194), Lord Robartes (F216), the Earl of Lindsey (F217) and perhaps Laney (F214: cf. note 164) were Honorary Members; Curtius (F231) was a diplomat; Mullen (F408) lived in Dublin; but no reason can be found concerning Isham (F141) (unless 'absent'), the Earl of Peterborough (F153), T. Harley (F228), Strangeways (F307), Sir P. Percivale (F316) and Papin (F399).
- (145) Other than the four mentioned in the text, these were Fraizer (F142), Hervey (F174), Hayward (F199), Coplestone (F206), Conway (F249), Eustace (F250), Flower (F255), Flatman (F260), D. Finch (F270), Titus (F273), Matthews (F286), Holles (F291), Sheeres (F319), J. King (F324), Colleton (F334), Langham (F337), Dickinson (F340), Mayow (F343), Sir W. Waller (F352), Wyndham (F370), Rogers (F375), Novell (F377), Braddon (F381), Goodwyn (F382), Penn (F386), Dorislaus (F392), Blackburne (F394), Baker (F414), J. Beaumont (F424) and Leigh (F425).

- (146) Cf. Birch, Vol. III, pp. 363, 366–367, 371, and Hooke *Diary*, ed. cit. (note 67), pp. 331, 335, 337–339. This is perhaps the place to note that two Fellows who were neither admitted nor in the lists spoke at meetings subsequently, Sir Peter Colleton (F334) in 1686 (Birch, Vol. IV, p. 500) and Sir Henry Sheeres (F319) (who was abroad when elected) in 1691 (JBO IX, p. 23).
- (147) These included Richard Rawlinson (proposed 2 Jan. 1661, Birch, Vol. I, p. 8; Fellow of Queen's College, Oxford, etc. (Foster)), John Twysden (proposed 23 Jan. 1661, Birch, Vol. I, p. 13; physician and author (DNB)), 'Monsieur Le Febure the younger' (proposed 19 Dec. 1666, Birch, Vol. II, p. 134), Sir John Colladon (proposed 2 April 1668, Birch, Vol. II, p. 261; Court physician (Venn)), Sir Edward Rich (proposed 12 Dec. 1670, Birch, Vol. II, p. 461; Reader at Lincoln's Inn (Evelyn *Diary*, Vol. III, p. 400n.)), Samuel Martin (proposed 30 March 1671, Birch, Vol. II, p. 475; possibly the S.M. of Durham who matriculated at St John's College, Cambridge, in 1661 (Venn)), William Simpson (proposed 20 May 1675, Birch, Vol. III, p. 219; Yorkshire physician and writer (Innes Smith, p. 213)), J. F. Preiss (proposed 17 June 1675, Birch, Vol. III, p. 223; 'physician to the prince of Newberg'), Charles Stewart (proposed 18 July 1678, Birch, Vol. III, p. 426; son of Sir Nicholas Stewart (F238)), William Russell (proposed 12 Jan. 1681, Birch, Vol. IV, p. 65; pharmacist and chemist in ordinary to Charles II (DNB)), 'Mr Hessack' or Heisig (proposed 23 Nov. 1681, Birch, Vol. IV, pp. 104, 111; 'a Swedish gentleman'), William Hewer (proposed 30 Nov. 1681, Birch, Vol. IV, p. 105; naval administrator, etc. (P. Norman, ed., *Occasional Papers Published for Members of the Samuel Pepys Club*, Vol. II (1917–1923), pp. 53–77)), Joseph Martin (proposed 30 Nov. 1681, Birch, Vol. IV, p. 105; possibly the J.M. of London, a Turkey merchant, knighted in 1712 (Shaw, Vol. II, p. 277) or the 'Mr Martin', a jeweller, cited in JBO VIII, p. 290, IX, p. 58, X, p. 95 and M. Hunter, *John Aubrey*, p. 110n.)), Olof Rudbeck (proposed 14 Dec. 1681, Birch, Vol. IV, p. 112; Swedish scholar (*Nouv. Biog. Univ.*)), Lewis van Hammen (proposed 2 April 1684, Birch, Vol. IV, p. 277; 'M.D. of Dantzick'), William Charleton (proposed 12 Nov. 1684, Birch, Vol. IV, p. 328; see above, p. 13) and William Briggs (proposed 12 Nov. 1684, Birch, Vol. IV, p. 328; physician, occultist and Censor R.C.P. (DNB)). This list is undoubtedly incomplete, however, since on one occasion the minutes mention that two candidates who were later elected were proposed 'together with some others' (Birch, Vol. IV, p. 200), and others may never have been recorded. Also, two Fellows were proposed but not elected some years before they were finally elected: Sir Theodore de Vaux (F197), proposed 13 March 1661 (Birch, Vol. I, p. 18), and Sir Nicholas Stewart (F238), proposed 23 Jan. 1661 (Birch, Vol. I, p. 13).
- (148) These are Coventry (F46), H. Blount (F60), Cowley (F61), Earl of Sunderland (F67), White (F75), Pettus (F76) (who was never in the printed lists although re-elected in 1663), Murray (F85), G. Lane (F102), De Vic (F108), Cudworth (F116) and N. Crisp (F129). None of these subscribed their names, and one should also mention here Rooke (F10), Rawlins (F36) and Pockley (F86), all of whom died too soon to be Original Fellows, none of whom subscribed their names. Some of these are mentioned in some notes of Fellows 'admitted & not subscribed' in Cl.P. XXIV, 71, which also includes a few who did subsequently subscribe and two Original Fellows.
- (149) Cf. the Society's statutes in Royal Society MS. 388, 9v–10.

- (150) I have used the series in the British Library, shelf-mark 1881.d.1(1), supplementing it with the Bodleian copies of those for 1663 (Wood 276a, no. 293) and 1684 (Ashmole H 24, no. 149) and the Royal Society's copy of that for 1675 (among the Southwell Papers). The lists for 1685, 1686 and 1687 are misleadingly dated.
- (151) Pepys, *Diary*, R. Latham and W. Matthews, eds., Vol. VII (1972), p. 96.
- (152) These are printed in *N. & R. R. S.*, 8, 150–152 (1951). The draft minutes for 1662–1689 comprise Royal Society MSS. 557–560; the draft Council minutes for 1666–1682 (all that survive) are in MS. 629.
- (153) Birch, Vol. I, p. 406. In cases where Fellows were inactive except for proposing candidates for election, I have qualified my categories with references to Birch (e.g. the Earl of Devonshire (F28), Oudart (F245), Downes (F247) or Graunt (F105) after the early 1660s).
- (154) Cf., for instance, Evelyn *Diary*, Vol. III, p. 517 and n., or Oldenburg–Boyle, 10 Nov. 1664, Oldenburg, Vol. II, p. 296, which records a remark by Ent at a meeting that does not appear in the minutes (Birch, Vol. I, p. 485). For another example, see Cl.P. III (1) 21, a paper by Thomas Blount endorsed as being read before the Society on 23 May 1667 which is not mentioned in the minutes for that date.
- (155) Cf. Georgicall Committee minutes (1664–1665), DM V, 63–65. Some other committee minutes will be found in *ibid.*, 60–62, 66–68, and Cl.P. III (1) 27.
- (156) Cf. Oldenburg, Vol. X, pp. 246–250, 364–367, 460–462, 484–485 and EL C.I.115–116.
- (157) Birch, Vol. II, p. 74. Cf. also the evidence from Hooke's *Diary* cited on pp. 19–20 above. On attendance figures, see p. 19 above.
- (158) For instance, Birch, Vol. I, pp. 267, 270 (Earl of Crawford and Lindsay (F137)), 292 (Quatremain (F62)), 445 (Sir E. Harley (F144)), II, 76 (Terne (F118)), 118 (Earl of Kincardine (F3)), III, 380 (Lawrence (F301)), 425 (Pearson (F222)), IV, 195 (Gwyn (F387)), 212 (Rycaut (F220)).
- (159) Birch, Vol. III, p. 366.
- (160) *Ibid.*, Vol. IV, p. 132.
- (161) These are Terne (F118), Sir A. King (F124) (except for letters) and Sir J. Talbot (F146). It is interesting that Talbot was on the second list in 1673 (see p. 53), which would otherwise seem entirely inexplicable.
- (162) Figures given in the Catalogue concerning payments in 1674 are based on guesswork. I should also point out that I have taken the accounts for 1660–1663 as a single unit since they are treated thus in the MS. On the rediscovery of the account books in 1957, see Bluhm, *art. cit.* (note 55). They are unpaginated and are therefore referred to here by year.
- (163) The following, however, were charged admission money: Leijonberg (F241), Heusch (F359), Spanheim (F350) and Sarotti (F356).
- (164) For the Bishops, cf. FF190, 192–194, 219 (Laney (F214) should presumably also belong to this class, though there is no official note of this). Boyle (F2) was also ostensibly an Honorary Member, though in fact he paid the normal dues, and so was Duke Ferdinand Albrecht (F184). The information concerning exemptions given here is taken from the following sources: a list of exemptions inserted into the accounts under the year 1668; a list of those 'exempted upon order, wholly or in part' in DM V, 40, probably compiled in connexion with a decision of the Council of 5 August 1682 (Birch, Vol. IV, p. 159); and individual notes in the accounts, *passim*, and in Birch, Vol. I, 241, Vol. II, p. 118, Vol. IV, pp. 226, 229, etc.

- (165) Pope (F72), Jenkes (F312), Mapletoft (F318), Perry (F345), Paman (F354), Meredith (F374).
- (166) These are listed in the 1671 account: Wren (F12), Holder (F39), Wallis (F57), Barrow (F115), Bathurst (F149) (cf. Birch, Vol. I, p. 241).
- (167) Curtius (F231), Reading (F287) in 1676 (cf. 1676 accounts), and perhaps Aglionby (F240), excused in 1668 but a paying member in the 1680s.
- (168) Persall (F53), Power (F104), Beale (F128), and perhaps Ray (F239).
- (169) More (F114), Gregory (F264), Bernard (F297).
- (170) Officers: Oldenburg (F33), Hooke (F136), Grew (F289), Gale (F331), Plot (F332), Aston (F342). Scientists: Pell (F19), Charleton (F68), Lower (F234) (cf. 1668 accounts), Collins (F235), Flamsteed (F327), Halley (F347), Tyson (F353), Paget (F398). A note in Birch, Vol. IV, p. 57, exempting 'Mr Avery', evidently refers to Aubrey (F127), who was thereafter exempted in the accounts. A few scientific enthusiasts only slightly associated with the Society were also exempted—Le Fevre (F91), Mercator (F215), Smethwick (F226).
- (171) Sir R. Harley (F81), Schroter (F110), T. Harley (F228), Gascoigne (F229), Lawrence (F301), Player (F303), Bridgeman (F357), P. Ward (F378). Sprat (F132), author of the *History*, was also exempt (cf. 1675 accounts), as were J. Lane (F341) (cf. above, p. 21) and Whichcote (F314) (after paying £10 in 1680).
- (172) These included an aristocrat (the 2nd Earl of Clarendon (F420)), scientists (Papin (F399) and Musgrave (F412)) and a don (Gould (F405)), and some for whom no reason can be adduced: R. Ford (F302), Winn (F304) and Chardin (F402). The Earl of Anglesey (F258) did not appear in the accounts until 1673, nor Berkenhead (F138) until 1678.
- (173) The Earl of Anglesey and Berkenhead. Cf. Birch, Vol. III, p. 119.
- (174) Pell was excused in the 1660–1663 accounts and in Birch, Vol. I, p. 241. Both Lister and Newton were inserted in the 1678 arrears list (see below, p. 52), but were marked respectively 'to be left out' and 'no arrears to be demanded'. Newton was marked as 'no pay' in the 4th list (see note 204, below), and he was ordered to be exempted in Birch, Vol. III, p. 178; he was omitted from the accounts only after 1684.
- (175) For instance, Stanhope (F103) resigned in 1670 (Birch, Vol. IV, pp. 130, 133) but was still in the accounts in 1681; the Earl of Crawford and Lindsay (F137), who died in 1678 (and was 'expelled' in 1682), was still in the 1684 accounts; Viscount Stormont (F213), who died in 1668, was still in the 1678 accounts; Clifton (F223), who died in 1669, was still in the accounts in 1673.
- (176) Cf. C. H. Josten, *Elias Ashmole* (1966), Vol. IV, p. 1701 (and possibly Vol. IV, p. 1626).
- (177) Active or slightly active: Petty (F8), C. Wren (F12), Slingsby (F14), Povey (F47), Tuke (F58), Brooke (F99), W. Hoare (F119), Aubrey (F127), Sprat (F132). Formerly slightly active: N. Henshaw (F51), Clayton (F88). Abroad: Earl of Sandwich (F50), Sir J. Finch (F65), Baines (F66).
- (178) Ignored: Sir P. Pett (F45), Earl of Peterborough (F153), Clifford (F156). Under two years' arrears: Potter (F130), J. Hoare (F167), Newburgh (F168), Slanning (F177), Portman (F179), Corbett (F195), some of them recent Fellows who had not yet paid anything.
- (179) DM V, 3. Mr Lindsay Sharp informs me that there is a duplicate of this among the Petty Papers at Bowood.
- (180) Birch, Vol. III, p. 95. On this list, DM V, 7, see p. 59. These two lists give the actual names from which are derived the figures in Birch, Vol. III, p. 119 (fifty-three who paid well, seventy-nine who did not and fourteen 'absent in the country').

- (181) Dead: N. Henshaw (F51), Ellis (F77), P. Pett (F112), E. Smith (F158), Rolt (F176), Carteret (F188), Clifton (F223), Castle (F276). No longer Fellows: Clayton (F88), Stanhope (F103).
- (182) Active: Pell (F19), Aubrey (F127). Absent: Sir J. Finch (F65), Baines (F66), Williamson (F101), Godolphin (F166), Hotham (F251), and perhaps the Earl of Crawford and Lindsay (F137). Less explicable: Hammond (F70), Earl of Argyle (F150), Stormont (F213), Lake (F221), Oudart (F245); also, Bruce (F134), Carkesse (F162) and Cock (F204), who were expelled in 1675.
- (183) Clarke (F18), Creed (F155), Lucy (F268) and Locke (F269), each owing £5 4s., and Vernon (F294), owing £4.
- (184) W. Ball (F9), Sir J. Finch (F65), Baines (F66), Fane (F117), Godolphin (F166), Glanvill (F175), Thrustone (F200), Lister (F288), Birch (F305).
- (185) Active or slightly active: Whistler (F49), Aubrey (F127), Creed (F155), T. Crisp (F209), Browne (F248), Allen (F253), and perhaps also Shaen (F109), Viscount Stafford (F183), Chamberlayne (F271), Horneck (F275). Excusable: Wallis (F57), Packer (F89), Bagenall (F172), Sir J. Williams (F285), Croke (F325).
- (186) Large debts ignored: Merret (F17), Duke of Buckingham (F74), Stanley (F78), Bysshe (F122), Earl of Crawford and Lindsay (F137), Earl of Argyle (F150), Earl of Carlisle (F201), Viscount Fitzharding (F232), Earl of Anglesey (F258). Surprising omissions (apart from these): Burnet (F161), du Moulin (F246), J. S. Howard (F300). Omitted in 1673 but now included: Hammond (F70), Williamson (F101) (marked 'not doubted'), Viscount Stormont (F213), Oudart (F245).
- (187) Respectively Birch, Vol. III, pp. 160–161, 177, 228.
- (188) *Ibid.*, Vol. III, p. 160.
- (189) *Ibid.*, Vol. III, pp. 94–95.
- (190) British Library Additional MS. 4441, 86. The two names in the list in the Council minutes that do not appear here are Glisson (F59) and Le Hunt (F254). The two names erased in the draft minutes of the meeting (Royal Society MS. 629) are those of Croone (F20) (in arrears) and J. Needham (F82) (who resigned in 1674). Birch's list has two misprints: 'Parker' should be 'Packer' and 'Mr Smith' should be 'Dr'.
- (191) Birch, Vol. III, p. 95.
- (192) Tuke (F58), Newburgh (F168), J. Colwall (F262), Lucy (F268), Vernon (F294), while Potter (F130), Thrustone (F200), Skippon (F227), Clerke (F237) were only just falling behind.
- (193) C. Wren (F12), Williamson (F101).
- (194) E. Ward (F256) (who had paid some of his arrears in 1672), Earl of Anglesey (F258), E. Howard (F267) (who paid his arrears in 1674).
- (195) Newburgh (F168), Skippon (F227), Clerke (F237).
- (196) Sprat (F132), Cutler (F171), Smethwick (F226), Collins (F235), Grew (F289). Pell (F19) should perhaps also come into this category (cf. p. 50).
- (197) Whistler (F49), D. Cox (F189).
- (198) Slingsby (F14), Sir G. Ent (F31), Sir G. Talbot (F71).
- (199) W. Ball (F9), Sir J. Finch (F65), Pope (F72), Long (F94), Barrow (F115), Beale (F128), Bathurst (F149), Neale (F165), Glanvill (F175), Thrustone (F200), Rycart (F220), Ray (F239), Newton (F290). On varieties of absence, see section 8, below.
- (200) Shaen (F109), Sir J. Talbot (F146) (cf. note 161, above), Stewart (F238) (who promised money for the College in 1668: cf. p. 62, below), Dursley (F244).



- (201) These were: Earl of Kincardine (F3), T. Coxe, sen. (F23), Graunt (F105), Hayes (F111), Terne (F118), P. Ball (F135), Earl of Shaftesbury (F148), Earl of Argyle (F150), T. Coxe, jun. (F151), Burnet (F161), Carkesse (F162), Bagenall (F172), Corbett (F195), T. Crisp (F209), Nelthorpe (F211), du Moulin (F246), Downes (F247), Allen (F253), Courthope (F266), Horneck (F275), Castle (F276).
- (202) Omitted from first list: Croone (F20), G. Smith (F120), de Vaux (F197), Pearson (F222), E. Ward (F256), Earl of Anglesey (F258), Locke (F269), Chamberlayne (F271), Barrington (F279). Omitted from second list: Slingsby (F14), Sir G. Ent (F31), Berkeley (F34), Whistler (F49), Long (F94), Neale (F165), Rycaut (F220), Clerke (F237). Inserted: T. Coxe, sen. (F23), Hayes (F111), Horneck (F275), Vernon (F294) (all with two to five years' arrears), J. Colwall (F262) (regular payments), Gregory (F264) (absent), Earl of Clarendon (F185) (Honorary Member: d. 1674), Bernard (F297), Lord Herbert (F299) (both elected in 1673), Earl of Carlisle (F201) (large arrears).
- (203) Add. MS. 4441, 28. Fellows who appeared on the other lists but are omitted here include J. Needham (F82), who resigned in 1674, and Cotton (F131), who died in 1675. Of those who appear here and in DM V, 39, but not in the first two lists, Bernard and Herbert were both elected in 1673, as was J. S. Howard (F300), who appears here only. The reference to 'entertainment' shows that this dates from after the summer of 1674, when the idea of persuading Fellows to contribute discourses was mooted (Birch, Vol. III, pp. 135, 137, etc.).
- (204) Fourth list and second list: Pell (F19), Pope (F72), D. Coxe (F189), Smethwick (F226), Collins (F235), Ray (F239), Grew (F289), Newton (F290) (all but Pope, Coxe and Ray noted here as 'no pay'). Fourth and third: Bernard (F297). Fourth only: Mercator (F215), du Moulin (F246).
- (205) Fifth list and first: Brereton (F32), Ashmole (F37), Wylde (F44), D. Colwall (F48), Earl of Ailesbury (F56), Sir C. Wyche (F83), Haak (F93), Brooke (F99), Williamson (F101), Southwell (F107), C. Howard (F123), Creed (F155), Sir J. Lowther (F157), Viscount Stafford (F183), Pepys (F187), H. Howard (F218), Pearson (F222), Le Hunt (F254), E. Ward (F256), Earl of Anglesey (F258), Locke (F269), Chamberlayne (F271), Banks (F272), Barrington (F279), Tillotson (F292), H. Howard (7th Duke) (F295), T. Howard (F296). Fifth and second: Shaen (F109), Neale (F165), Newburgh (F168), Cutler (F171), Stewart (F238). Fifth and third: Hayes (F111), J. Colwall (F262), Lord Herbert (F299). Fifth only: P. Wyche (F106), T. Crisp (F209) (both slightly active), Portman (F179), Fitzharding (F232), Oudart (F245), J. S. Howard (F300) (all inactive).
- (206) P. Neile (F5), Duke of Devonshire (F28), Oldenburg (F33), Berkeley (F34), Glisson (F59), Erskine (F79), J. Needham (F82), Packer (F89), Cotton (F131), de Vaux (F197), Arderne (F265), E. Howard (F267), Sir J. Williams (F285).
- (207) DM V, 2. Cf. Birch, Vol. II, pp. 118, 213. Also nearly expelled in 1666, though for rather different reasons, was Sorbiere (F140) (cf. Birch, Vol. II, pp. 123, 124, 127).
- (208) Cf. Birch, Vol. III, pp. 224, 231, 233, 243.
- (209) Slingsby, Pett, Nott, Downes, Colepeper.
- (210) Both were in arrears. Earlier, Clayton (F88) had been quietly dropped from the lists after 1668 (cf. above, p. 46) and Cock (F204) after 1672 (marked 'out' in the 1675 accounts).
- (211) DM V, 17. The list is printed in Birch, Vol. IV, p. 159.

- (212) It seems to be 'Mr Map' or 'May', but is certainly not Mapletoft (F318) or Mayow (F343). There is also a note concerning Sir Thomas Baines' arrears of £48 14s., to 'abate absence if desired', and 'Mr Sheridon, desired he might pay £10. Left to Dr. Wood to treat with him' (cf. Birch, Vol. IV, pp. 119, 160 (where 'Banks' is wrongly substituted for 'Baines'))).
- (213) Birch, Vol. IV, p. 159. The Fellows in question were Winde (F113), Aglionby (F240) and Dursley (F244) (who was thereafter omitted from the accounts but not from the lists). O. Hill (F329), though listed for expulsion, had never been on the printed lists (cf. above, p. 45), while the Earl of Crawford and Lindsay (F137) had died in 1678. On Thrustone (F200), ordered to be omitted from the lists at this time (Birch, Vol. IV, p. 134), see above, p. 55.
- (214) Arderne (F265), Locke (F269), J. Lane (F341), Bembe (F344), Sir P. Ward (F378) (at this time in exile for perjury). Of these, Bembe returned in 1686, Arderne, Lane and Bridgeman in 1689, Ward in 1691 and Locke in 1696. They have therefore not been shown as 'expelled' in the Catalogue. Further evidence of the almost unreasonable zeal shown on this occasion may be provided by the case of William Napper (F355), omitted from the lists although not badly in arrears: but, since his identity is obscure (cf. above, p. 43), the omission could be due to death.
- (215) The list is printed in Birch, Vol. IV, p. 421, from the Council minutes, Vol. II, p. 55, but omitting the name of Parker (F210). Schroter (F110) and Gould (F405) were omitted from the lists although not ordered for expulsion, while Clench (F366), who falls into the same category, but who contributed to a meeting in 1687 (Birch, Vol. IV, p. 532), was perhaps omitted accidentally.
- (216) Godolphin (F166), Rycaut (F220).
- (217) W. Ball (F9), Wallis (F57), Skippon (F227), Birch (F305), T. Smith (F333), Chetwynd (F339), Wetenhall (F407), Mullen (F408), Willoughby (F409).
- (218) Viscount Weymouth (F173), Pearson (F222), E. Howard (F267), Duke of Norfolk (F295), T. Howard (F296), Lord Herbert (F299) (these three omitted from the accounts), Viscount Halifax (F317). J. S. Howard (F300) may belong to this class or may have been left on the lists accidentally. Sambrooke (F380) was also left out of the accounts though left on the lists.
- (219) R. Robinson (F389), Turnor (F397), Monson (F415), Beaumont (F416), and perhaps Sir J. Percivale (F373).
- (220) Birch, Vol. IV, p. 134.
- (221) *Ibid.*, Vol. III, p. 191. For further replies concerning arrears see *ibid.*, Vol. III, p. 127, IV, pp. 126, 130.
- (222) *Ibid.*, Vol. III, p. 228.
- (223) Sir Peter Wyche (F106) and the Earl of Dorset (F196) (cf. Birch, Vol. III, p. 118). The latter paid eight years' arrears in 1675.
- (224) Birch, Vol. IV, p. 161.
- (225) Beale-Evelyn, 17 July 1669, Christ Church, Oxford, Evelyn Collection, Correspondence, no. 86.
- (226) Woodroffe-Southwell, 2 March 1675, H.M.C. *Egmont*, Vol. II, p. 36. Woodroffe may well have been disingenuous in this, since in a letter to the Earl of Hastings of 1 Dec. 1674 (H.M.C. *Hastings*, Vol. II, p. 166), he shows that he already knew that the Society intended to impose a penal bond and to desire those who would not subscribe to it to quit the Society.

- (227) Cf. da Cunha–Oldenburg, 13 April 1668, Oldenburg, Vol. IV, pp. 313–315, and Birch, Vol. II, pp. 256, 263.
- (228) Cf. Oldenburg, Vol. X, pp. 78, 322. I am unable to explain why Clüver (F346), who is supposed to have died in 1708, was listed among the English members until that date and thereafter among the Foreign ones until 1717.
- (229) Wallis–Oldenburg, 11 Jan. 1675, EL W.2.27.
- (230) Leigh–Musgrave, 22 June 1685, LBO X, 164.
- (231) Cf. Oldenburg–Newburgh, 11 Sept. 1669, Oldenburg, Vol. VI, p. 225.
- (232) Cf. Musgrave–Aston, 11 July 1685, LBO X, 184. On admissions, see above, p. 45 and notes.
- (233) Cf. the letters cited in note 156, above.
- (234) Birch, Vol. IV, p. 402.
- (235) DM V, 7. See above, p. 52.
- (236) Cf. Birch, Vol. II, pp. 205, 211, and Oldenburg–Boyle, 14 Jan. 1668, Oldenburg, Vol. IV, p. 113.
- (237) Cf. Birch, Vol. II, p. 194, and Oldenburg–Boyle, 2 Oct. 1667, Oldenburg, Vol. III, p. 505.
- (238) Oldenburg–Boyle, 21 Jan. 1668, *ibid.*, Vol. IV, p. 116.
- (239) Oldenburg–Norwood, 10 Feb. 1668, *ibid.*, Vol. IV, p. 167.
- (240) Birch, Vol. II, p. 205. Cf. *ibid.*, Vol. II, pp. 211–212.
- (241) *Ibid.*, Vol. II, pp. 238–239, 243–245.
- (241a) Cf. Birch, Vol. II, pp. 242–243, and Oldenburg–Boyle, 14 Jan. 1668, Oldenburg, Vol. IV, p. 113, which refers to a promise of £50 or more from Carteret (F188), which did not appear in MS. 352.
- (242) Oldenburg–Rycaut, 30 Jan. 1668, Oldenburg, Vol. IV, p. 133.
- (243) Birch, Vol. II, p. 313.
- (244) Cf. MS. 352; Birch, Vol. II, pp. 238, 275, 282, 289, 300, 304, 305; and Wren–Oldenburg, 7 June 1668, Oldenburg, Vol. IV, pp. 454–455. Wren's sketch (probably) for this building is reproduced in Oldenburg, Vol. IV, plate 4.
- (245) Cf. Birch, Vol. II, pp. 299–300.
- (246) Wren–Oldenburg, 7 June 1668, Oldenburg, Vol. IV, p. 455.
- (247) Evelyn *Diary*, Vol. III, p. 505.
- (248) On the committee: Hoskins (F92), Sir J. Lowther (F157). Active Council members: Sir P. Neile (F5), Morgan (F16), Sir G. Ent (F31), Brereton (F32), Erskine (F79), C. Howard (F123), Creed (F155).
- (249) Pepys, *Diary*, H. B. Wheatley, ed. (1920), Vol. VII, p. 388.

## CATALOGUE OF FELLOWS, 1660-1685

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
1	Brouncker, William, 2nd Viscount [c. 1620]	Present 28 Nov 1660	Mathematician, Chan- cellor to the Queen, etc (DNB & DSB)	President & Council, 1662-77	Very active, esp. in 1660s; barely after 1677	Regular	1st, 3rd, 4th		1684
2	Boyle, Robert [1627]	"	Aristocrat & natural philosopher (DNB & R. E. W. Maddison, 1969)	Council 1662-3, 1666, 1667, 1671, 1673, 1680	Very active	Regular (except 3 yrs' arrears in 1673)	1st, 3rd, 4th		1691
3	Bruce, Alexander, (2nd Earl of Kincardine 1662)	"	Landed aristocrat with learned interests, P.C., etc (DNB)		Slightly active up to 1666; thereafter inactive	Regular in 1660s; arrears paid 1675 but 5 yrs' arrears in 1680			1680
4	Moray (Murray), Sir Robert [c. 1608]	"	Courtier, Lord of Ex- chequer for Scotland, etc (DNB & A. Robertson, 1921)	Council 1662-72	Very active	Regular			1673
5	Neile, Sir Paul [c. 1613]	"	Courtier & astronomer (H. Hartley, ed., <i>The Royal Society</i> (1960), 159-66)	Council 1662-73, 1675, 1677	Very active in 1660s; fairly in 1670s; inactive thereafter	Regular & extra payments in 1664-6	1st, 3rd		1686
6	Wilkins, John [1614]	"	Dean of Ripon (1663), Bishop of Chester (1668), etc (DNB & B. Shapiro, 1969)	Secretary 1663-8; Council 1662-71	Very active	Regular & posthumous bequest of £400			1672
7	Goddard, Jonathan [c. 1617]	"	Gresham Professor of Physic, etc (DNB)	Council 1662-6, 1668-74	Very active	Regular	1st, 3rd, 4th		1675
8	Petty, William (knighted 1661) [1623]	"	Political economist, etc (DNB & E. Strauss, 1954)	Council 1662-4, 1666, 1671, 1673-4, 1679, 1682	Very active, esp. early 1660s, early 1670s & 1680s	Irregular but persistent	1st, 3rd, 4th		1687
9	Ball (Balle), William [c. 1627]	"	Devonshire gent. & astronomer (DNB)	Treasurer 1660-3; Council 1662-3	Very active in early 1660s; fairly active 1667-8; barely thereafter	Regular till 1670; 16 yrs' arrears in 1685	2nd, 3rd (absent)		1690
10	Rooke, Lawrence [1622]	"	Astronomer; Gresham Professor of Geometry (DNB & DSB)		Very active 1661-2	Regular 1661-2			1662

11	Hill, Abraham [1635]	"	London citizen with learned interests, etc (DNB)	Treasurer 1663-5, 1679-85; Secretary 1673-5; Council 1663-6, 1672-85	Very active	Regular in early 1660s & 1680s; irregular but persistent in between After 1661, 14 yrs' arrears paid in 1674 & fairly regular thereafter ( $\frac{1}{2}$ exempt) Payments 1660-3 only; 14 yrs' arrears in 1677	1st, 3rd, 4th	1721
12	Wren, Christopher (knighted 1673) [1632]	"	Natural philosopher, Surveyor General, etc (DNB & J. Summerson, 1953)	President 1680-2; Council 1662, 1666, 1669, 1673, 1676-85	Very active	Irregular but persistent till 1668; 7 yrs' arrears in 1673	1st, 3rd, 4th	1723
13	Powle, Richard (knighted 1661) [c. 1628]	(?)	Barrister, M.P. & courtier (Foster & <i>Ang. Notit.</i> )	Inactive		Regular		1678
14	Slingsby, Henry [c. 1621]	(?)	Master of the Mint, etc (CSP Dom, <i>passim</i> ; <i>Ang. Notit.</i> )	Council 1662-4	Fairly frequent attendance 1661-3; barely active thereafter	Irregular but persistent till 1668; 7 yrs' arrears in 1673	2nd	Expelled 1675 c. 1689
15	Henshaw, Thomas [1618]	(?)	Courtier, diplomat, writer, etc (DNB)	Secretary 1668-72, 1675-7; Council 1662-4, 1666, 1668-71, 1674-80, 1682-5 Council 1663, 1666-7	Very active	Regular	1st, 3rd, 4th	1700
16	Morgan, Sir Anthony [1621]	(?)	Soldier & courtier (DNB)	Regular attendance; active as legal adviser		Regular		1668
17	Merret, Christopher [1614]	(?)	London physician & writer (DNB & DSB)	Council 1663, 1666	Very active to mid-1660s; inactive thereafter	Regular till c. 1668; 16 yrs' arrears in 1684	Expelled 1685	1695
18	Clarke, Timothy [?]	(?)	Physician to Charles II, F.R.C.P. (DNB)	Council 1662-4, 1666, 1668, 1670 Council 1675	Active	Regular		1672
19	Pell, John [1611]	(?)	Mathematician & divine (DNB & DSB)		Active in early 1660s; slightly active thereafter	Nothing ever paid (see p. 50)	2nd, 3rd, 4th	1685
20	Croone (Croune), William [1633]	Appointed 'Register' 28 Nov 1660	M.D., Gresham Professor of Rhetoric, Anatomy Lecturer to Surgeons Co., etc (DNB & DSB)	Council 1664, 1666, 1668, 1670, 1672, 1675-6, 1678-81, 1683	Very active	Regular in 1660s & 1676-8; 9 yrs' arrears paid in 1682	1st, 4th	1684



No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
21	Wren, Matthew [1629]	(?)	Secretary successively to Clarendon & the Duke of York, etc (DNB <i>sub</i> M. Wren, 1585–1667)	Council 1662, 1663, 1666	Slightly active	Regular			1672
22	Wren, Thomas [1633]	(?)	Archdeacon of Ely (1663), M.D., etc (DNB <i>sub</i> M. Wren, 1585–1667)		Inactive	Payments in 1660–3 & 1665–6 only; 14 yrs' arrears in 1679			1679
23	Coxe, Thomas [1615]	(?)	Physician & F.R.C.P. (DNB)		Barely active (1664)	Regular in 1660s; arrears cleared 1675 but 9 yrs' outstanding in 1684	3rd		1685
24	Digby, Sir Kenelm [1603]	12 Dec 1660	Virtuoso & courtier (DNB & R. T. Petersson, 1956, V. Gabrieli, 1957)	Council 1662–3	Fairly active, esp. in 1661	Payments in 1660–3 only			1665
25	Austen (Austin?), John [?1613]	"	? Gent. & Catholic writer (DNB)		Barely active (1666)	Regular			?1669 (last in 1667 list) 1681
26	Compton, James, 3rd Earl of Northampton [1622]	(?)	Lord Lieutenant of Warwicks, P.C., etc (GEC)	Council 1666	Some attendance on Council; otherwise barely active	Only part of admission money ever paid			
27	Powle, Henry [1630]	(?)	Lawyer & politician (DNB)		Slightly active to 1666; inactive thereafter	Payments in 1660–3, 1666 only; 16 yrs' arrears in 1684	Expelled 1685		1692
28	Cavendish, William, 3rd Earl of Devonshire [1617]	(?)	Landed aristocrat with learned interests (DNB)		Inactive except II, 245*	Regular (except 3 yrs' arrears in 1682)	1st, 3rd		1684
29	Ward, Seth [1617]	Subscribed 18 Dec 1661	Bishop of Exeter (1662), translated to Salisbury 1667, etc (DNB)	Council 1664, 1666–78	Regular attendance & occasional contributions till 1675; barely active thereafter	Regular till c. 1680; fairly thereafter	1st, 3rd, 4th		1689
30	Bate, George [1608]	19 Dec 1660	Chief State Physician, author (DNB)		Inactive	£10 paid in 1663; nothing thereafter	(See below, no. 136a)		1668
31	Eant, George (knighted 1665) [1604]	(?)	Physician, President R.C.P., etc (DNB & DSB)	Council 1662–3, 1666–8	Very active in 1660s; inactive after 1670	Regular till c. 1670; 4 yrs' arrears in 1674	2nd	Last in 1674 list	1689

32	Breton, William (3rd Baron Breton 1664) [1631]	Proposed 19 Dec 1660	Nobleman & natural philosopher (Crossley, ed., <i>Worthington Diary</i> , I (Chetham Soc. 1847), 212-3)	Council 1662-3, 1667-9, 1671	Active in 1660s but not thereafter	Regular in 1660s; 11 yrs' arrears paid in 1680	1st, 3rd, 5th	1680
33	Oldenburg, Henry [1618]	"	Natural philosopher (DNB & DSB)	Secretary 1662-77; Council 1662-76	Very active	Exempt	1st, 3rd	1677
34	Berkeley, George, Baron (1st Earl of of Berkeley 1679) [1628]	(?)	Statesman with colonial interests (DNB)	Council 1668, 1671-3, 1676, 1679, 1683-4	Slightly active, mainly in 1660s	Regular	1st, 3rd	1698
35	Cavendish, William, Lord Cavendish (4th Earl of Devonshire 1684) [1640]	(?)	Politician, etc (DNB)		Barely active (present 1666, 1682)	Payments in 1660-3 only; 22 yrs' arrears in 1684	Expelled 1685	1707
36	Rawlins, Giles [?]	Proposed 26 Dec 1660	Gentleman of the Privy Purse to the Duke of York (N. & R.R.S., XIV (1960), 177)		Inactive	Regular 1661-2		1662
37	Asmole, Elias [1617]	"	Windsor Herald, govt. official & virtuoso (DNB & C. H. Josten, 1966)		Barely active	Regular	1st, 3rd, 5th	1692
38	Evelyn, John [1620]	"	Govt. official, courtier & virtuoso (DNB & E. S. de Beer, ed., <i>Diary</i> , 1955)	Secretary 1672-3; Council 1662-3, 1668, 1670, 1672, 1676, 1679, 1681-2, 1684-5	Very active	Regular	1st, 3rd, 4th	1706
39	Holder, William [1616]	16 Jan 1661	Divine & writer (DNB)	Council 1675, 1677, 1679, 1682	Fairly active	Fairly regular (£ exempt)	1st, 3rd, 4th	1698
40	Scarburgh, Charles [1616]	"	Physician to Charles II, etc, & author (DNB)		Inactive	Payments in 1661-3 only	Expelled 1666	1694
41	Boyle, Richard [?]	Proposed 26 Dec 1660	Second son of the Earl of Cork; naval volunteer (Foster)		Inactive	Nothing ever paid		1665
42	Denham, John (K.B. 1661) [1615]	"	Poet, courtier & Surveyor General (DNB & B. O Hehir, 1968)		Inactive	Not even full admission money paid	Last in 1663 list, but expelled 1666	1669

\* References in this form denote volume and page of Birch throughout

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
43	Waller, Edmund [1606]	16 Jan 1661	Poet, etc (DNB & W. L. Chernaik, 1968)		Slightly active in 1660s	Payments in 1661-3 only; 19 yrs' arrears in 1682		Last in 1682 list	1687
44	Wylde (Wilde), Edmund [c. 1614]	"	Landed gent. & virtuoso (A. Powell, <i>John Aubrey</i> , 253-8)	Council 1673	Slightly active 1662, 1667-9	Regular	1st, 3rd, 5th		1696
45	Pett, Peter (knighted 1663) [1630]	"	Lawyer & Irish office- holder (DNB)		Inactive (but cf. I, 81)	Payments in 1661-3 only; 13 yrs' arrears in 1675		Expelled 1675	1699
46	Coventry, William [1627]	"	Politician & courtier (DNB)		Inactive	Payments in 1661-3		Not O.F.	1686
47	Povey, Thomas [c. 1615]	(?)	Administrator & courtier (DNB)	Council 1663, 1679	Active, almost entirely in 1660s & late 1670s	Payments in 1661-3 only; 21 yrs' arrears in 1684			Last in 1702 list
48	Colwall, Daniel [?]	16 Jan 1661	Citizen of London, etc (DNB)	Treasurer 1665-79; Council 1663-85	Very active	Regular	1st, 3rd, 5th		1690
49	Whistler, Daniel [1619]	Proposed 9 Jan 1661	Physician, writer, etc (DNB)	Council 1663, 1666, 1674, 1676-7	Active in 1660s & 1670s; inactive thereafter	Regular in 1660s; 2nd 13 yrs' arrears in 1683, 8 of which paid	2nd		1684
50	Mountagu (Montagu), Edward, 1st Earl of Sandwich [1625]	Adm. 13 Feb 1661	Admiral, diplomat & courtier (DNB & F. R. Harris, 1912)	Council 1668	Barely active except for frequent correspondence	Payments in 1661-3 only; 9 yrs' arrears in 1672			1672
51	Henshaw, Nathaniel [1628]	Proposed 26 Dec 1660	Physician & writer (DNB)		Slightly active 1661-3	Payments in 1661-3 only; 10 yrs' arrears in 1673			1673
52	Harton, Christopher, 1st Baron Hatton [1605]	(?)	P.C., Governor of Guernsey (DNB)		Inactive	Small contrib. in 1661-3 only; 9 yrs' arrears in 1670			1670
53	Persall (Pearsall), Sir William [?]	Proposed 26 Dec 1660	Staffs. gent. with scientific interests (Taylor, 236)		Slightly active 1661-2	Exempt			Last in 1670 list
54	Lucas, John, Lord Lucas [1606]	(?)	Royalist nobleman renowned for his learning (GEC)		Inactive	Payments in 1661-3 only		Expelled 1666	1671

55	Pierpont, Henry, Marquis of Dorchester [1606]	(?)	P.C., etc, with scholarly interests (DNB)	Council 1663	Inactive	Not even full admission money paid	1680
56	Bruce, Robert, Lord Bruce (2nd Earl of Elgin 1663; 1st Earl of Ailesbury 1665) [c. 1626]	(?)	Courtier & politician (GEC)	Council 1669, 1670, 1674, 1675	Slightly active	Fairly regular	1685
57	Wallis, John [1616]	6 March 1661	Savilian Professor of Geometry at Oxford, etc (DNB & J. F. Scott, 1938)	Council 1662	Active & frequent correspondent	Regular till early 1670s; 12 yrs' arrears in 1685 ( $\frac{1}{3}$ exempt)	1703
58	Tuke, Samuel (knighted 1664) [?]	"	Courtier, diplomat & dramatist (DNB)	Council 1670	Fairly active 1661-4; barely thereafter	Fairly regular	1674
59	Glisson, Francis [1597]	"	Regius Professor of Physic at Cambridge, etc (DNB & DSB)		Slightly active	Regular	1677
60	Blount, Sir Henry [1602]	"	Traveller, etc (DNB)		Inactive	Never in accounts	Not O.F. 1682
61	Cowley, Abraham [1618]	"	Poet & courtier (DNB & A. H. Nethercot, 1931)		Inactive	Never in accounts	Not O.F. 1667
62	Quatremain, William [c. 1618]	20 March 1661	Physician in Ordinary to Charles II, M.P., etc (Foster)		Slightly active	Regular	1667
63	Vaughan, John, Lord (3rd Earl of Carbery 1686) [1639]	"	Courtier, Governor of Jamaica, etc (DNB)	Council 1685	Active in 1685 only	Regular payments in 1685 only	Not O.F. 1713 (see below, no. 420a)
64	Vermuyden, Cornelius [? c. 1626]	Proposed 1 April 1661	? Son of the drainage engineer Sir C. V. (DNB <i>sub</i> Sir C. V., ?1595- ?1683)		Slightly active in 1661-3 only	Payments in 1661-3 only (off accounts after 1666)	(?)
65	Finch, Sir John [1626]	(?)	M.D. & diplomat (DNB & A. Malloch <i>Finch &amp; Baines</i> , 1917)	Council 1671	Barely active	Payments in 1661-3 & 1673 only; 18 yrs' arrears in 1682	1682
66	Baines (Baynes), Thomas (knighted 1672) [1622]	(?)	M.D. & Gresham Prof. of Music (DNB & A. Malloch <i>Finch &amp; Baines</i> , 1917)		Barely active	Payments in 1661-3 only; 18 yrs' arrears in 1681	1681

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
67	Spencer, Robert, 2nd Earl of Sunderland [1640]	Subscribed 15 May 1661	The statesman (DNB & J. P. Kenyon, 1958)		Inactive	Never in accounts		Not O.F.	1702
68	Charleton, Walter [1619]	Admitted 15 May 1661	Physician & author (DNB & DSB)		Very active in early 1660s; inactive after 1668	Payments in 1661–3 only; thereafter exempt Regular		Last in 1667 list	1707
69	Alleyn, John [c. 1622]	"	Lawyer, M.P., & Essex gent. (Venn & P. Morant <i>Hist. Essex</i> (1768), II, 94)		Inactive				1663
70	Hammond, William [?1614]	Proposed 23 Jan 1661	Kentish gent. & ? lawyer or physician (see p. 43)		Barely active (1661)	Payments in 1661–6 only; 17 yrs' arrears in 1682		Last in 1681 list	?1685
71	Talbot, Sir Gilbert [c. 1607]	Admitted 22 May 1661	Master of the Jewel Office to Charles II, etc (Foster)	Council 1663, 1668	Attends on Council & slightly active in 1660s; inactive thereafter	Fairly regular till c. 1670; 15 yrs' arrears in 1684	2nd, 3rd	Expelled 1685	1695
72	Pope, Walter [?]	"	Gresham Professor of Astronomy, etc (DNB)	Council 1666, 1668	Active in 1660s; barely thereafter	Exempt	2nd, 3rd, 4th	Last in 1698 list	1714
73	Palmer, Dudley [c. 1617]	Admitted 28 May 1661	Lawyer & virtuoso (Foster)	Council 1662–6	Very active, esp. as Council member	Regular			1666
74	Villiers, George, 2nd Duke of Buckingham [1628]	Admitted 5 June 1661	Statesman & courtier (DNB)		Inactive (except at admission)	Payments in 1661–3 only; 21 yrs' arrears in 1684		Expelled 1685	1687
75	White, Richard [?]	26 June 1661	? Gent. & virtuoso (see p. 44)		Inactive	Never in accounts		Not O.F. (?)	
76	Pettus, Sir John [1613]	"	Deputy Governor of the Royal Mines, etc (DNB)		Inactive	Never in accounts		Not O.F. & never in lists (though cf. below, no. 149b)	1690
77	Ellis (Ellise), Andrew [?]	14 Aug 1661	Deputy Postmaster (1667) (CSP Dom, 1667, etc)		Slightly active 1661–4, mainly as legal adviser	Payments in 1661–3 only; 8 yrs' arrears in 1672			1672
78	Stanley, Thomas [1625]	"	Poet & classical scholar (DNB)		Inactive	Small payment in 1661–3 only; 17 yrs' arrears in 1678			1678

79	Erskine (Aerskine), William [?]	"	Cupbearer to Charles II, Master of Charterhouse, etc (DNB)	Council 1662-8, 1670-2, 1676, 1678, 1681	Very regular Council member in 1660s; slightly active thereafter	Regular	1st, 3rd	1685
80	Nott, Sir Thomas [1660]	"	Courtier (DNB)		Inactive	Payments in 1661-3 only; 10 yrs' arrears in 1673	(absent)	Expelled 1675
81	Harley, Sir Robert [1626]	"	Army Colonel & Chancellor & Keeper of the Seal of the Carbee Isles (HMC <i>Portland</i> III)		Inactive (but cf. II, 167)	Payments in 1661-3 only; thereafter exempt		1673
82	Needham, Jasper (Caspar) [c. 1623]	Admitted 28 Aug 1661	London physician; Censor R.C.P. (Venn)		Barely active (1661)	Regular	1st, 3rd	Resigns 1674
83	Wyche, Sir Cyril [?1632]	"	Politician & office-holder (DNB)	President 1683-4; Council 1675, 1680, 1682-5	Regular attendance as President; slightly active otherwise	Regular	1st, 3rd, 5th	1707
84	Jones, Richard (3rd Viscount Ranelagh 1670, 1st Earl of Ranelagh 1674) [c. 1641]	Admitted 11 Sept 1661	Irish politician & office-holder (DNB)		Inactive	Payments in 1661-3 only; 18 yrs' arrears in 1682		Expelled 1682
85	Murray, Mungo [c. 1595]	11 Sept 1661	Former Gresham Professor of Astronomy & Norfolk parson ( <i>Ward Lives</i> , 88-90)		Inactive	Never in accounts		1670
86	Pockley, Thomas [?]	"	Physician, etc (Venn & <i>Raven Ray</i> , 45)		Inactive	Never in accounts		1661
87	Clotworthy, Sir John, 1st Viscount Massereene [?]	Subscribed 11 Sept 1661	Irish landowner & politician (DNB)		Occasional correspondent	Only part of admission money ever paid		1665
88	Clayton, John (knighted 1664) [?]	Admitted 30 Oct 1661	Lawyer, M.P., etc (E. & D. S. Berkeley <i>John Clayton</i> (1963), 9-13)		Fairly active 1661-3 only (but cf. III, 330)	Irregular but persistent in 1660s	Last in 1668 list	c. 1710
89	Packer, Philip [c. 1620]	Admitted 13 Nov 1661	Barrister & Kentish gent. (Foster & Evelyn <i>Diary</i> , II, 548n etc)	Council 1679, 1681-2	Fairly active, esp. 1660s, late 1670s & 1680s	Regular	1st, 3rd	1686
90	Willis, Thomas [1621]	"	M.D., Sedleian Professor of Natural Philosophy at Oxford, etc (DNB)		Barely active	Nothing ever paid	2nd, 3rd	Not O.F. 1675 (see below, no. 153a)



No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
91	Le Fevre (Le Febure), Niclaus [c. 1610]	Admitted 4 Dec 1661	Chemist to Charles II (DNB & DSB)		Slightly active	Payments in 1661-3 only; thereafter exempt			1669
92	Hoskins (Hoskyns), John (knighted 1676) [1634]	"	Barrister & Herefordshire gent. (DNB)	President 1682-3; Secretary 1685; Council 1663, 1666-7, 1669, 1672-4, 1676-85 Council 1678	Very active	Regular till 1673 & after 1682; 9 yrs' arrears in 1682	1st, 3rd, 4th		1705
93	Haak, Theodore [1605]	"	German scholar & translator (DNB & P. R. Barnet, 1962)		Active, esp. con- cerning foreign correspondence	Regular	1st, 3rd, 5th		1690
94	Long, James (2nd bart. 1673) [1617]	"	Wiltshire gent. (DNB)		Very active in 1663; occasionally thereafter	Regular in early 1660s; thereafter payments in 1675-6 & 1682 only	2nd	(See below, 1692 no. 130a)	1692
95	Willughby, Francis [1635]	"	Naturalist & Warwick- shire gent. (DNB)		Slightly active; frequent corre- spondent	Regular			1672
96	Gauden, John [c. 1605]	(?)	Bishop of Exeter; translated to Worcester 1662 (DNB)		Inactive	One payment in 1661-2			1662
97	Paston, Robert (2nd bart. 1663; Viscount Yarmouth 1673; 1st Earl of Yarmouth 1679) [1631]	Admitted 18 Dec 1661	Norfolk landowner, courtier, etc (DNB)		Barely active (1663)	Regular till c. 1666; 16 yrs' arrears in 1682		Expelled 1682	1683
98	Winthrop, John [1606]	Admitted 1 Jan 1662	Governor of Connecticut (DNB & R. C. Black, 1966)		Active 1662-3; occasional corre- spondent thereafter	Exempt (Foreign member)			1676
99	Brooke, John (baronet 1676) [1635]	Admitted 8 Jan 1662	Citizen of York, M.P., etc (GEC <i>Bar. IV</i> : 75; A. Hill <i>Familial Letters</i> (1767), 87-125; Venn)		Slightly active (1661, 1672)	Payments in 1662-3; arrears paid in 1667, 1673, but 12 yrs' out- standing in 1684	1st, 3rd, 5th	Expelled 1685	1691
100	Proby, Henry [?]	Admitted 5 Feb 1662	Barrister ( <i>Mid. Temp.</i> <i>Adm. Reg.</i> , I, 142)		Barely active (1662)	Regular			Last in 1664 list

101	Williamson, Joseph (knighted 1672) [1633]	„	Statesman & courtier (DNB)	President 1677-80; Council 1666, 1674-85	Slightly active; attendance esp. in late 1670s-1680s	Regular in 1660s; 16 yrs' arrears in 1684, when 4 yrs' paid	1st, 3rd 5th	1701
102	Lane, Sir George [c. 1621]	Admitted 19 Feb 1662	Later 2nd bart. & Viscount Lanesborough, Irish politician & office- holder (GEC)		Inactive	Never in accounts		Not O.F. 1683
103	Stanhope, Alexander [1638]	26 Feb 1662	Courtier & diplomat ( <i>Evelyn Diary</i> , III, 551-2n; B. Williams <i>Stanhope</i> (1932), 1-7)		Barely active (1663)	Payments in 1662-3 only till arrears paid in 1670		Resigns 1670
104	Power, Henry [1623]	„	Halifax physician & natural philosopher (DNB & DSB)		Frequent corre- spondent 1661-5	Exempt		Not O.F. 1668 (see below, no. 141a)
105	Graunt, John [1620]	Admitted 5 March 1662	Citizen of London & statistician (DNB & DSB)	Council 1664	Active in early 1660s; inactive after 1666 except II, 200	Regular in 1660s; 4 yrs' arrears in 1673		1674
106	Wyche, Sir Peter [1628]	Admitted 2 April 1662	Diplomat & translator (DNB <i>sub</i> Sir P. Wyche, d. 1643)	Council 1663, 1670	Regular attendance 1663-4; slightly active thereafter, inc. as correspondent	Regular till c. 1668; sub- sequent payments in 1677, 1683 only	5th	Last in 1693 list
107	Southwell, Robert (knighted 1665) [1635]	Admitted 7 May 1662	Statesman & diplomat (DNB)	Council 1669, 1673-5, 1677, 1679, 1681	Active, esp. in 1670s & 1680s	Fairly regular	1st, 3rd, 5th	1702
108	De Vic, Sir Henry [c. 1590]	„	Resident at Brussels & Chancellor of the Order of the Garter (GEC <i>Bar.</i> , III, 11)		Inactive	Never in accounts		Not O.F. 1671
109	Shaen, James (baronet, 1663) [?]	17 Sept 1662	Irish politician & office- holder (GEC <i>Bar.</i> , III, 323)	Council 1674	Barely active except council attendance	Regular till c. 1666; payments in 1670, 1675, but 12 yrs' arrears in 1684	2nd, 3rd, 5th	Expelled 1685
110	Schroter, William [?]	„	German virtuoso & alchemist (Oldenburg, IX, 168)		Slightly active	Only admission money ever paid; exempt from 1666		Last in 1684 list
111	Hayes, James (knighted 1670) [?]	„	Secretary to Prince Rupert; active in Hudson's Bay Co. (E. E. Rich, ed., <i>Hudson's Bay Co. Minutes</i> 1679-84, II, 322f.)	Council 1667, 1670	Slightly active in 1660s; inactive after 1671	Fairly regular in 1660s; 14 yrs' arrears in 1684	3rd, 5th	Expelled 1685

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
112	Pett, Peter [1610]	17 Sept 1662	Commissioner of the Navy (DNB)		Inactive (but cf. II, 153, 157)	Only admission money ever paid			c. 1672 (last in 1671 list)
113	Winde (Wynde), William [?]	"	Army captain & architect (H. M. Colvin <i>Biog. Dict.</i> <i>of English Architects</i> (1954), 682-6)		Barely active (1662, 1664)	Regular till 1665; 19 yrs' arrears in 1684		Expelled 1685	1722
114	More, Henry [1614]	"	The Cambridge Platonist (DNB & M. Nicolson, ed., <i>Conway Letters</i> , 1930)		Inactive	Exempt		Not O.F. (see below, no. 164a)	1687
115	Barrow, Isaac [1630]	"	Master of Trinity College, Cambridge, mathe- matician, etc (DNB & DSB)		Inactive	Nothing ever paid ( $\frac{1}{2}$ exempt)	2nd, 3rd (absent)		1677
116	Cudworth, Ralph [1617]	"	The Cambridge Platonist (DNB & DSB)		Inactive	Never in accounts		Not O.F.	1688
117	Fane, Sir Francis [?]	1 Oct 1662	Dramatist, etc (DNB)		Inactive	Only admission money ever paid	(absent)	Expelled 1682	?1689
118	Terne, Christopher [1620]	8 Oct 1662	London physician, lecturer & author (DNB)		Barely active (1666)	Fairly regular			1673
119	Hoare, William [?]	15 Oct 1662	Physician, Candidate R.C.P. (Venn & Munk)		Slightly active	Only admission money ever paid			1666
120	Smith (Smyth), George [1630]	19 Nov 1662	Physician, Candidate R.C.P. (Foster)	Council 1669, 1674	Slightly active up to mid-1670s; inactive thereafter	Good paymaster till c. 1673; 8 yrs' arrears in 1684	1st, 4th	Expelled 1685	1702
121	Dryden, John [1631]	"	Poet & dramatist (DNB & C. E. Ward, 1961)		Inactive	Only admission money ever paid		Expelled 1666	1700
122	Bysshe, Sir Edward [c. 1615]	"	Clarenceux King-of-Arms & Surrey M.P. (DNB)		Inactive	Regular till c. 1666; 13 yrs' arrears in 1679		(See also below, no. 140a)	1679
123	Howard, Charles [?]	24 Dec 1662	Landed aristocrat & virtuoso (C. Howard <i>Historical Anecdotes of Howard family</i> (1769), 116f.)	Council 1663-4, 1667, 1669, 1672, 1677	Active till c. 1673; only slightly thereafter	Regular (except 3 yrs' arrears in 1685)	1st, 3rd, 5th		1713
124	King, Sir Andrew [?]	"	Merchant living at Gresham College (Davies & Ward <i>Lives</i> , 329)		Slightly active, mainly as correspondent	Regular		Resigns 1667	1679

125	Annesley, James, Lord Annesley [c. 1643]	7 Jan 1663	Heir to the Earl of Anglesey, M.P., etc (GEC)	Inactive	Arrears paid in 1666 but 15 yrs' outstanding in 1682	Expelled 1682	1690
126	Nelle, William [1637]	"	Mathematician, P.C., etc (DNB)	Active almost entirely in late 1660s	Regular		1670
127	Aubrey, John [1626]	"	Gentleman & virtuoso (DNB & A. Powell, 2 ed. 1963, M. Hunter, 1975)	Active	Payments 1661-7 only; exempt 1680		1697
128	Beale, John [c. 1613]	"	Somerset divine & natural philosopher (DNB)	Frequent correspondent	Exempt	2nd, 3rd	Not O.F. 1683 (see below, no. 149a)
129	Crisp, Sir Nicholas [?1599]	18 March 1663	Merchant, customs farmer, etc (DNB)	Inactive	Never in accounts		Not O.F. 1666
130	Potter, Francis [1594]	"	Somerset parson & natural philosopher (DNB)	Inactive except for occasional correspondence through Aubrey	Fairly regular till c. 1672; 4 yrs' arrears in 1675	(absent)	Not O.F. 1678 (see below, no. 152a). Last in 1674 list
130a	Long, James	1 April 1663	Re-election: see above, no. 94				
131	Corton, Edward [c. 1616]	Admitted 15 April 1663	Exeter divine (Foster)	Correspondent & occasionally at meetings	Regular	1st, 3rd (absent)	1675
132	Sprat, Thomas [1635]	15 April 1663	Divine & author; Bishop of Rochester (1684) (DNB & DSB)	Inactive except for writing <i>History</i>	Nothing ever paid; exempt from 1670s	2nd, 3rd	1713
133	Lowther, Anthony [c. 1642]	22 April 1663	Gent. of Yorks & Essex & M.P. (Bullock & GEC <i>Bar.</i> , IV, 171)	Inactive	Regular till 1666; 16 yrs' arrears in 1682	(absent)	Expelled 1682
134	Bruce, David [?]	20 May 1663	Scottish physician with court connections (DNB)	Inactive	No payments ever made		Expelled (?) 1675
135	Ball (Balle), Peter [c. 1638]	"	M.D. & F.R.C.P. (DNB)	Active in 1660s; inactive after 1670	Regular in 1660s; 5 yrs' arrears in 1675		1675
136	Hooke, Robert [1635]	3 June 1663	Natural philosopher, Cutlerian lecturer, etc (DNB & M. 'Espinasse, 1956)	Curator of Expts. 1662-77; Secretary 1677-82; Council 1677-81, 1684	Exempt	1st, 3rd, 4th	1703

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
136a	Bate, George	3 June 1663	Re-election: see above, no. 30						
137	Lindsay, John, 17th Earl of Crawford & 1st Earl of Lindsay [1596]	22 June 1663	Lord High Treasurer (DNB)		Slightly active in 1663	Payments in 1663, 1665 only; 14 yrs' arrears in 1678			1678
138	Berkenhead (Birkenhead), Sir John [1616]	"	Royalist journalist & courtier (DNB & P. W. Thomas, 1969)		Inactive	Nothing ever paid (not in accounts till 1678)			1679
139	Huygens, Christiaan [1629]	"	Dutch natural philosopher (DSB)		Frequent correspondent	Foreign member			1695
140	Sorbière, Samuel [1615]	"	French divine & writer ( <i>Nouv. Biog. Univ.</i> )		Barely active (1663)	Foreign member			1670
140a	Bysshe, Sir Edward	"	Re-election: see above, no. 122						
141	Isham, Sir Justinian [1610]	1 July 1663	Northamptonshire gent. & M.P. (DNB & Sir G. Isham, ed., <i>Correspondence</i> , 1955)		Inactive (never admitted)	Never in accounts		In 1674 list only (see below, no. 300a)	1674
141a	Power, Henry	"	Re-election: see above, no. 104		Inactive (never admitted)	Never in accounts		Not in lists	1681
142	Fraizer (Frazer), Alexander [1610]	8 July 1663	Physician to Charles II; F.R.C.P. (DNB)						
143	Beaufort Vabres de Fresars, Victor [?]	16 July 1663	Noble French abbé (Birch, I, 279, 406)		Inactive	Foreign member			Last in 1674 list
144	Harley, Sir Edward [1624]	22 July 1663	Governor of Dunkirk, etc (DNB)		Barely active (1664)	Only admission money ever paid		Expelled 1685	1700
145	Ford, Henry (knighted 1672) [1619]	"	Secretary to Viceroy of Ireland, etc (DNB)		Inactive	Only admission money ever paid		Expelled 1682	1684
146	Talbot, Sir John [1630]	29 July 1663	Army colonel, courtier, etc (C. Dalton <i>English Army Lists</i> , I, 7; <i>Angl. Notit.</i> )		Barely active (1666)	Regular till c. 1668; 16 yrs' arrears in 1684	2nd, 3rd	Expelled 1685	1714
147	Waterhouse, Edward [1619]	Admitted 29 July 1663	Miscellaneous writer (DNB)		Slightly active 1663-4	Regular till c. 1666			1670

148	Cooper, Anthony Ashley, Lord Shaftesbury (1st Earl of Shaftesbury 1672) [1621]	5 Aug 1663	The statesman (DNB & K. H. D. Haley, 1968)	Council 1664, 1667, 1673	Barely active	Regular in 1660s; subsequent payments in 1673, 1676, but 5 yrs' arrears in 1683	1683
149	Bathurst, Ralph [1620]	19 Aug 1663	Physician, divine, President of Trinity College, Oxford (DNB)		Barely active	Arrears paid in 1667, 1675, 1682 (£ exempt)	1704
149a	Beale, John	"	Re-election: see above, no. 128				
149b	Pettus, Sir John	"	Re-election: see above, no. 76				
150	Campbell, Archibald, 9th Earl of Argyle [?]	28 Oct 1663	Scottish Privy Councillor, etc (DNB)		Inactive	Fairly regular in 1660s; 12 yrs' arrears in 1682	Expelled 1682
151	Coxe, Thomas [?]	4 Nov 1663	Physician; son of T. Coxe senior (F23) (Venn)		Active in 1665-7 only	Regular in 1660s; arrears paid in 1674 but 10 yrs' outstanding in 1684	Expelled 1685 (?)
152	Gomeldon, William [?]	11 Nov 1663	Merchant; Sheriff for Kent (Hasted <i>History of Kent</i> , I, xiv, III, 449)		Barely active (1663)	In 1664 accounts only; only admission money ever paid	Never in 1703 lists
152a	Potter, Francis	"	Re-election: see above, no. 130				
153	Mordaunt, Henry, 2nd Earl of Peterborough [?1624]	18 Nov 1663	Politician & courtier (DNB)		Inactive	Nothing ever paid	Expelled 1697 1682
153a	Willis, Thomas	"	Re-election: see above, no. 90				
154	Leighton, Sir Elisha [?]	9 Dec 1663	Courtier, Secretary of the Prize Office, etc (DNB)		Barely active (1664)	Regular till c. 1668; 10 yrs' arrears in 1677	Last in 1685 1677 list
155	Creed, John [?]	16 Dec 1663	Deputy Treasurer of Fleet, etc (DNB <i>sub</i> Elizabeth Creed, ?1644-1728)	Council 1666-7, 1669, 1671, 1673, 1676, 1678, 1680, 1682, 1684	Frequent attendance, flagging by 1680s	Regular till mid 1670s; 7 yrs' arrears in 1685	Last in 1699 list 1st, 3rd, 5th (?)



No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
156	Boyle, Charles, Viscount Dungarvan (Lord Clifford 1665) [?]	6 Jan 1664	Landed aristocrat & M.P. (GEC <i>sub</i> Cork & Burlington)		Inactive	Only admission money ever paid		Expelled 1685	1694
157	Lowther, Sir John [c. 1642]	27 Jan 1664	Westmorland landowner, M.P. & office-holder (GEC <i>Bar.</i> , II, 181; DNB <i>sub</i> Sir J. L. first Viscount Lonsdale, 1655–1700) ?Gloucestershire gent. (see p. 44)	Council 1664, 1667, 1670, 1672–4, 1676–7, 1680–2	Regular attendance; contribs. to discussion 1677–9, 1685	Regular	1st, 3rd 5th		1706
158	Smith (Smyth), Edward [?]	"			Inactive	Regular (to 1670)		Last in 1668 list	(?1670)
159	Hay, John, 2nd Earl of Tweeddale [1626]	3 Feb 1664	Scottish statesman (DNB)		Inactive	Payments in 1664, 1666 only; 18 yrs' arrears in 1684		Expelled 1685	1697
160	Williams, Roger [?]	"	? (see p. 43)		Inactive (but cf. I, 388) Inactive	Regular payments 1664–5		Never in lists	(?1665)
161	Burnet, Gilbert [1643]	23 March 1664	Divine; Bishop of Salisbury (1689) (DNB & T. E. S. Clarke & H. C. Foxcroft, 1907)			Regular in 1660s; 15 yrs' arrears in 1684			1715
162	Carkesse, James [?]	"	Clerk in the Ticket Office; later in Bedlam (DNB & E. G. O'Donoghue <i>Bethlehem Hospital</i> (1914), 219–22)		Inactive	Regular till 1670; 5 yrs' arrears in 1675		Expelled 1675	(?)
163	Hevelius, Johann [1611]	30 March 1664	Astronomer of Dantzig (DSB)		Frequent correspondent	Foreign member			1687
164	Vossius, Isaac [1618]	20 April 1664	Dutch scholar who settled in England in 1670 (DNB)		Slightly active in 1670s	Payment in 1678 only; previously exempt (Foreign member)			1689
164a	More, Henry	25 May 1664	Re-election: see above, no. 114						

165	Neale (Neile), Thomas [?]	1 June 1664	Hampshire gent. & writer (DNB & V. C. H. Hants II, 270)	Council 1667	Barely active	Regular in 1660s; arrears paid in 1674, but 11 yrs' outstanding in 1684	2nd, 5th Expelled 1685	(?)
166	Godolphin, William (knighted 1668) [?1634]	2 Nov 1664	Politician & diplomat (DNB)		Barely active (1668)	Payments in 1666, 1668, but 19 yrs' arrears in 1685		1696
167	Hoare, James [?]	"	Controller of the Mint (CSP Dom, <i>passim</i> )		Inactive	Payments in 1666–8, 1677–8, 1682 only	Expelled 1682	1696
168	Newburgh, John [?]	"	Dorset gent. (Oldenburg, VI, 226)		Occasional correspondent	Regular till c. 1672; 11 yrs' arrears in 1684	2nd, 3rd, 5th Expelled 1685	(?)
169	Woodford, Samuel [1636]	"	Hants gent., cleric (1669) and poet (DNB)		Inactive	Payments in 1666, 1668 only; 13 yrs' arrears in 1682	Expelled 1682	1700
170	Atkyns, Sir Robert [1647]	9 Nov 1664	Gloucestershire gent. & antiquary ( <i>Trans. Bristol &amp; Glouc. Arch. Soc.</i> , XXXV, 69–87)		Inactive	Regular till c. 1669; 16 yrs' arrears in 1684	Expelled 1685	1711
171	Curler, Sir John [?1608]	"	London merchant (DNB)	Council 1673	Attends once on Council only	Honorary Fellow	2nd, 3rd, 5th	1693
172	Bagenall (Bagnal), Nicholas [?]	23 Nov 1664	Denbighshire gent. (Bulloch)		Barely active (1665–6)	Irregular but persistent	Last in 1699 list	1712
173	Thynne, Thomas (2nd bart. 1681, 1st Viscount Weymouth 1682) [1640]	"	Politician, diplomat, etc (DNB)		Barely active (1666, 1679)	Payments in 1666, 1676–80 only; 13 yrs' arrears outstanding in 1685		1714
174	Hervey (Harvey), John [1616]	7 Dec 1664	Treasurer to Catherine of Braganza (DNB)		Inactive (never admitted)	Never in accounts	Never in lists	1679
175	Glavill, Joseph [1636]	14 Dec 1664	Divine & propagandist of the new philosophy (DNB & J. I. Cope, 1956)		Occasional correspondent	Only admission money ever paid	2nd, 3rd (absent)	1680

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
176	Rolt, Thomas [c. 1641]	14 Dec 1664	Bedfordshire gent. (Venn)		Inactive	Payments in 1666-7 only; 5 yrs' arrears in 1672			1672
177	Slanning, Sir Nicholas [1643]	21 Dec 1664	Standard-bearer to Band of Gentlemen Pensioners, etc (GEC <i>Bar.</i> , III, 270-1)		Inactive	Only admission money ever paid		Expelled 1682	1691
178	Churchill, Sir Winston [?1620]	28 Dec 1664	Politician & courtier (DNB)		Inactive	Only admission money ever paid		Expelled 1685	1688
179	Portman, Sir William [?1641]	"	Influential West Country landowner (DNB)		Inactive	Only admission money ever paid	5th	Expelled 1685	1690
180	Charles II [1630]	9 Jan 1665			Inactive	Patron			1685
181	James, Duke of York (James II, 1685)	"			Inactive	Honorary Fellow		Last in 1688 list	1701
182	Monck, George, 1st Duke of Albermarle [1608]	"	Statesman, etc (DNB)		Inactive	Honorary Fellow			1670
183	Howard, William, Viscount Stafford [1614]	18 Jan 1665	Landed Catholic aristocrat (DNB)	Council 1666, 1671-2	Slightly active up to mid-1670s	Fairly regular; 6 yrs' arrears in 1680	1st, 3rd, 5th		1680
184	Ferdinand Albrecht I, Duke of Brunswick- Lüneberg [1636]	25 Jan 1665	German Duke & virtuoso ( <i>Allg. Deutsch. Biog.</i> )		Occasional correspondent	Honorary Foreign member			1687
185	Hyde, Edward, 1st Earl of Clarendon [1609]	8 Feb 1665	Lord Chancellor (DNB)		Inactive	Honorary Fellow	3rd		1674
186	Blount, Thomas [c. 1604]	"	Former M.P. & Parliamentarian colonel & inventor (DNB)		Active in 1665-7	Regular 1665-7		Resigns 1668	(?)
187	Pepys, Samuel [1633]	15 Feb 1665	Naval administrator, etc (DNB & A. Bryant, 1933-8)	President 1684-5; Council 1672, 1674, 1676, 1681, 1684-5	Fairly frequent attendance esp. in 1680s	Regular	1st, 3rd, 5th		1703

188	Carteret, Philip (knighted 1667) [?]	22 Feb 1665	Naval Lieutenant, etc (GEC <i>Bar.</i> , IV, 47; <i>Pepys Diary</i> ; <i>Commissioned Sea Officers of R.N.</i> 1666–1815, I, 152)	Council 1667	Slightly active while on Council	Only admission money ever paid	?1672
189	Coxe, Daniel [1640]	22 March 1665	Physician, author & colonial adventurer (Venn)	Council 1674	Very active in mid 1660s, fairly in 1670s, barely in 1680s	Payments in 1666 only; 19 yrs' arrears in 1685	1730
190	Sheldon, Gilbert [1598]	"	Archbishop of Canterbury (DNB)		Inactive (but cf. II, 462)	Honorary Fellow	1677
191	Rupert, Prince [1619]	"	Privy Councillor, Admiral, virtuoso, etc (DNB & E. Scott, 1899)		Inactive, though in contact with R.S.	Honorary Fellow	1682
192	Sterne (Stearne), Richard [?1596]	29 March 1665	Archbishop of York (DNB)		Inactive	Honorary Fellow	1683
193	Henchman, Humphrey [1592]	"	Bishop of London (DNB)		Inactive	Honorary Fellow	1675
194	Dolben, John [1625]	"	Dean of Westminster, Bishop of Rochester (1666), Archbishop of York (1683) (DNB)		Inactive	Honorary Fellow	1686
195	Corbett, Sir Richard [1640]	3 May 1665	Shropshire gent. & M.P. (Foster & GEC <i>Bar.</i> , II, 184)		Inactive	Payments in 1667, 1669; 13 yrs' arrears in 1682	1683
196	Sackville, Richard, 5th Earl of Dorset [1622]	"	Courtier & politician (DNB <i>sub</i> Sir E. Sackville, 4th Earl, 1591–1652)	Council 1672	Attends once on Council only	Arrears paid in 1667, 1675 only	1677
197	De Vaux, Sir Theodore [c. 1628]	10 May 1665	Physician to Charles II & Queen Catherine, etc (Foster & Munk)	Council 1668, 1671, 1678, 1680	Active esp. in 1660s; inactive in mid 1670s; slightly active from 1679	Regular till mid 1670s; 8 yrs' arrears outstand- ing in 1685	1694
198	Montagu, Edward, 2nd Earl of Manchester [1602]	"	Commissioner of the Great Seal, Lord Cham- berlain, etc (DNB)		Inactive	Honorary Fellow	1671

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
199	Hayward, Sir William [?]	17 May 1665	Gent.-in-ordinary to the Privy Chamber, etc (Harleian Soc., LX (1910), 58)		Inactive (never admitted)	Never in accounts		Never in lists	(?)
200	Thrustone, Malachy [1629]	24 May 1665	Fellow of Caius College, Cambridge, & physician practicing in Exeter (Venn)		Inactive	Regular till c. 1672; 7 yrs' arrears in 1678	2nd, 3rd (absent)	Last in 1677 list	1701
201	Howard, Charles, 1st Earl of Carlisle [1629]	14 June 1665	Privy Councillor, Governor of Jamaica, etc (DNB)		Barely active (1667)	Only admission money ever paid	3rd	Expelled 1682	1685
202	Dumas, Vital [?]	28 June 1665	Agent of the French merchants (Birch, II, 60)		Inactive	Foreign member			Last in 1673 list
203	Lionne, Hugues Louis de [?]	"	Son of the French Secretary of State (Oldenburg, II, 433)		Inactive	Foreign member			Last in 1681 list
204	Cock, George [?]	21 March 1666	Merchant & government official (DNB)		Slightly active in 1666 only	Regular in 1660s; 5 yrs' arrears in 1673		Last in 1672 list	1679
205	Harrington, William [?]	"	Merchant active in E. India Co. ( <i>E. India Co. Court Mins.</i> 1664-7, 218; Woodhead)		Slightly active in 1666 only	Regular			1671
206	Coplestone, John [1623]	9 May 1666	Exeter divine (Venn)		Inactive (never admitted)	Never in accounts		Never in lists	1689
207	Hay, John, Lord Yester [1645]	23 May 1666	Son of the Earl of Tweeddale, Scottish P.C., etc (GEC)		Inactive	Payments in 1666-7 only; 18 yrs' arrears in 1684		Expelled 1685	1713
208	Auzout, Adrian [1622]	"	Astronomer & Member of Academie des Sciences (DSB)		Frequent correspondent; attends in 1682	Foreign member			1691
209	Crisp, Thomas (knighted 1703) [?]	"	Merchant & Oxford gent. (Shaw II, 273; Davies; <i>E. India Co. Court Mins.</i> 1677-9)		Slightly active	Irregular but persistent	5th		Last in 1713 list
210	Parker, Samuel [1640]	13 June 1666	Divine & controversialist (DNB)		Inactive	Only admission money ever paid		Last in 1684 list	1688

211	Nelthorpe, Edward [?]	27 June 1666	Lincolnshire gent. (GEC <i>Bar.</i> , IV, 29)	Inactive	Regular till c. 1670; 9 yrs' arrears in 1678	Last in 1677 list	c. 1685
212	King, Edmund (knighted 1676) [1629]	18 July 1666	Physician to Charles II, etc (DNB)	Very active, esp. in 1660s	Regular, except for 1673-7	1st, 3rd, 4th	1709
213	Murray, David, 4th Viscount Stormont [?]	29 Aug 1666	Scottish statesman (GEC)	Inactive	Only admission money ever paid		1668
214	Laney, Benjamin [1591]	14 Nov 1666	Bishop of Lincoln; translated to Ely 1667 (DNB)	Inactive (never admitted)	Never in accounts		1675
215	Mercator, Nicolas (i.e. Kaufman, Nicolaus) [?1620]	"	Mathematician of Danish origin (DSB)	Barely active (1670)	Exempt (Foreign member from 1682)	4th	1687
216	Robartes, John, 2nd Baron Robartes (1st Earl of Radnor 1679) [1606]	"	Lord Privy Seal, Lord President of Council, etc (DNB)	Inactive	Honorary Fellow		1685
217	Bertie, Robert, 3rd Earl of Lindsey [c. 1630]	21 Nov 1666	Lord Great Chamberlain, etc (GEC)	Inactive	Honorary Fellow		1701
218	Howard, Henry (Baron of Castle- rising 1669; 6th Duke of Norfolk 1677) [1628]	28 Nov 1666	Traveller, diplomat, etc; Earl Marshall (1677) (DNB)	Frequent attendance & occasional contributions till c. 1674; inactive thereafter Inactive	Regular till c. 1677; 7 yrs' arrears in 1684	1st, 3rd, 5th	1684
219	Morley, George [1597]	"	Bishop of Winchester (DNB)	Inactive	Honorary Fellow		1684
220	Rycaut, Paul (knighted 1685) [1628]	12 Dec 1666	Diplomat & writer (DNB)	Slightly active in 1680s; pre- viously occasional correspondent Inactive	Only admission money paid till 1682; regular 1682-5	2nd (absent)	1700
221	Lake, Thomas (knighted 1670) [?]	14 Feb 1667	? Middlesex gent. (Shaw, II, 245; <i>Lincolns Inn Adm. Reg.</i> , I (1896), 275)		Only admission money ever paid		Last in 1674 list
222	Pearson, John [1613]	14 March 1667	Master of Trinity College, Cambridge; Bishop of Chester (1673) (DNB)	Barely active (1676, 1678)	Regular in 1660s & 1670s; 5 yrs' arrears in 1685	1st, 5th	1686



No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
223	Clifton, Sir Clifford [?]	28 Mar. 1667	Nottinghamshire gent. (Thoroton <i>Nottingham- shire</i> , ed. Throsby, I, 108-9; <i>Trans. Thoroton Soc.</i> , XXXVII, 40)		Inactive	Only admission money ever paid			1669
224	Boulliau (Bullialdus), Ismael [1603]	4 April 1667	Catholic priest & astronomer (DSB)		Occasional correspondent	Foreign member		Last in 1691 list	1694
225	Petit, Pierre [1594 or 8]	"	French engineer, astronomer, etc (DSB)		Inactive	Foreign member			1677
226	Smethwick, Francis [?]	"	Amateur optical instrument maker (Taylor, 256-7)		Slightly active	Exempt	2nd, 3rd, 4th	Expelled 1682	(?)
227	Skippon, Philip (knighted 1674) [1641]	16 May 1667	E. Anglian gent. & virtuoso (Venn & Raven Ray, 52-3)		Slightly active in 1660s; occasional correspondent thereafter	Regular until c. 1672; irregular in later 1670s; 7 yrs' arrests in 1685	2nd, 3rd		1691
228	Harley, Thomas [?]	30 May 1667	Herefordshire gent., etc (HMC <i>Portland</i> III)		Inactive (never admitted)	Exempt		Last in 1674 list	c. 1684
229	Gascoigne (Guasconi), Sir Bernard [1614]	20 June 1667	Military adventurer & diplomat (DNB)		Inactive (but cf. II, 180)	Exempt		Expelled 1685	1687
230	Needham, Walter [?1631]	" (admitted 6 Apr 1671)	London physician & anatomical writer (DNB)	Council 1671, 1673, 1675, 1677	Active in 1670s; inactive thereafter	Regular	1st, 3rd, 4th		1691
231	Curtius, Sir William [?]	3 Oct 1667	English Resident in Germany & Sweden (GEC <i>Bar.</i> , III, 12)		Occasional correspondent	Exempt			1678
232	Berkeley, Sir Maurice (3rd Viscount Fitz- hardinge, 1668) [c. 1628]	17 Oct 1667 (admitted 5 Nov 1668)	Politician, Privy Councillor, etc (GEC & GEC <i>Bar.</i> , III, 72)		Inactive	Only admission money ever paid	5th	Expelled 1682	1690
233	Reymes, Bullen [?]	17 Oct 1667	Dorset M.P., Commis- sioner for Sick & Wounded Prisoners, etc ( <i>Evelyn Diary</i> , III, 388n; <i>Aug. Notit.</i> )		Inactive	Regular in 1660s			1672

234	Lower, Richard [1631]	"	Physiologist & physician (DNB & DSB)	Active in 1667–8 only	Exempt	Expelled 1675	1691
235	Collins, John [1625]	"	Government clerk & mathematician (DNB & DSB)	Active, esp. in late 1660s	Exempt	2nd, 3rd 4th	1683
236	Beringhen, Theodore de [1644]	24 Oct 1667	'Conseilleur of the Parlement of Paris', etc (printed lists & Oldenburg, V, 95)	Barely active (1668)	Foreign member		Last in 1681 list
237	Clerke, Henry [1622]	"	Physician & President of Magdalen College, Oxford (DNB)	Inactive	Payments 1667–9 only; 11 yrs'	2nd	1687
238	Stewart (Steward), Sir Nicholas [c. 1616]	"	Chamberlain of the Exchequer, M.P., etc (GEC <i>Bar.</i> , III, 65)	Inactive	Fairly regular till 1675; 11 yrs' arrears in 1682, 5 of which paid	2nd, 3rd, 5th	Discharged 1710 1682
239	Ray (Wray), John [1627]	7 Nov 1667	The naturalist (DNB & C. E. Raven, 2 ed. 1950)	Slightly active; correspondent when absent	Exempt	2nd, 3rd, 4th	1705
240	Aglionby, William [c. 1642]	"	M.D., diplomat & writer (N. & Q., 12 ser 9 (1921), 141–3)	Barely active till 1682; active thereafter	Exempt (1668) & not in accounts till 1680s, when regular		1705
241	Leijonberg (Leyonbergh), Johan [1625]	21 Nov 1667	Swedish envoy (Birch, II, 214; Bulloch)	Slightly active	Foreign member, but admission money paid		1691
242	Soame, William (baronet 1683) [1644]	"	Suffolk gent. & diplomat (Venn & GEC <i>Bar.</i> , IV, 136)	Inactive	Only admission money ever paid		1686
243	Ubal dini, Carlo, Count, of Montefeltri [?]	"	Tuscan nobleman & Protestant proselyte (Oldenburg, II, 457)	Barely active (1669)	Foreign member	In 1668 list only	(?)
244	Berkeley, Sir Charles (Lord Dursley 1679) [1649]	"	Politician & courtier (Bulloch & Foster)	Inactive	Payments in 1668–9 only; 12 yrs' arrears in 1682	2nd	Expelled 1685 1710
245	Oudart, Nicholas [?]	"	Latin Secretary to Charles II, etc (DNB)	Inactive except II, 246	Only admission money ever paid	5th	1681
246	du Moulin (Molines), James [?1628]	5 Dec 1667	? Master of Surgery to Charles II & James II, etc (DNB)	Inactive (except for French trans. of Sprat)	Regular till 1670; 12 yrs' arrears in 1682	4th	Expelled 1682 ?1686

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
247	Downes (Downs), John [1627]	5 Dec 1667	Physician to Christ's Hospital, etc (Munk)		Inactive except II, 293	Payments in 1660s only; 6 yrs' in 1675		Expelled 1675	1694
248	Browne, Edward [1644]	2 Jan 1668	London physician & traveller (DNB)	Council 1670, 1678, 1683	Correspondent 1668-70 & fairly active thereafter	Irregular but persistent	1st, 3rd, 4th		1708
249	Conway, Edward, Lord Conway [c. 1623]	"	Irish politician & office-holder (GEC)		Inactive (never admitted)	Never in accounts		Never in lists	1683
250	Eustace, Sir Maurice [?]	9 Jan 1668	Lawyer of Lincolns Inn, etc ( <i>Records of Lincolns Inn</i> , I (1896), 279; <i>English Hist. Rev.</i> , XXXV (1920), 251-9)		Inactive (never admitted)	Never in accounts		Never in lists	1703
251	Hotham, Charles [1615]	"	Divine, Minister in Bermudas, etc (DNB)		Inactive	Nothing ever paid			1672
252	Wentworth, William, 2nd Earl of Strafford [1626]	6 Feb 1668	K.G., P.C. (1674), etc (GEC)		Inactive	Nothing ever paid		Expelled 1685	1695
253	Allen, Thomas [?]	"	Physician to Bedlam; Censor R.C.P. (Munk)	Council 1678-9	Active in late 1660s, late 1670s & occasionally in 1680s	Payments in 1668-9 only; 15 yrs' arrears in 1684			1684
254	Le Hunt, William [?]	Admitted 13 Feb 1668	?Lawyer of Grays Inn (J. Foster, ed., <i>Grays Inn Adm. Reg.</i> (1889), 200)		Barely active	Regular till c. 1674; 9 yrs' arrears in 1682	1st, 3rd, 5th	Expelled 1682	(?)
255	Flower, [?]	20 Feb 1668	? Mathematical- instrument maker (Taylor, 236)		Inactive (never admitted)	Never in accounts		Never in lists	(?)
256	Ward, Esay [?1629]	"	? Physician (Foster)		Inactive	Payments in 1668, 1672 only	1st, 5th		1674
257	Alvares da Cunha, Antonio [1626]	9 April 1668	Secretary of Academia dos Generosos, Lisbon, etc (Oldenburg, IV, 315)		Inactive	Foreign member		Last in 1684 list	1690
258	Annesley, Arthur, 1st Earl of Anglesey [1614]	16 April 1668	President of Council of State, Lord Privy Seal (1672), etc (DNB)	Council 1671	Inactive	Nothing ever paid (not in accounts till 1673)	1st, 5th	Expelled 1685	1686

259	Harby, Sir Erasmus [1628]	"	Barrister at the Inner Temple (GEC <i>Bar.</i> , III, 88; W. H. Cooke, ed., <i>Inner Temple Students</i> (1877), 330) Poet & miniature-painter (DNB) Oxford tutor, divine & author (DNB)	Inactive	Nothing ever paid	1674
260	Flatman, Thomas [1637]	30 April 1668		Inactive (never admitted) Inactive	Never in accounts Only admission money & one-quarter's subs in 1668 ever paid Regular	1688 Never in lists Expelled 1711 1682
261	Woodroffe, Benjamin [1638]	"		Inactive	3rd, 5th	Last in 1679 list
262	Colwall, John [?]	14 May 1668	? Son of D. Colwall (F48) & London gent. (Vern)	Inactive	Only admission money ever paid	1708
263	Colepeper (Collepeyr), Thomas [1637]	28 May 1668	Kentish gent. (DNB)	Inactive	Exempt	Expelled 1675 1675
264	Gregory, James [1638]	11 June 1668	Professor of Mathematics at St Andrews (DNB & DSB)	Occasional correspondent	3rd	1675
265	Arderne, James [1636]	"	London divine; Dean of Chester (1682) (DNB)	Barely active (1679)	Regular till c. 1672; 11 yrs' arrears in 1684 Payments in 1669–70 only; 14 yrs' arrears in 1684	1691
266	Courthope, Peter [1639]	6 Aug 1668	Sussex gent. (Raven <i>Ray</i> , 52)	Inactive	Payments in 1669 and 1674 only; 12 yrs' arrears in 1685	1724 Expelled 1685
267	Howard, Edward [?]	5 Nov 1668	Brother of 6th Duke of Norfolk (Evelyn <i>Diary</i> , III, 329)	Inactive	Regular till c. 1674; 4 yrs' arrears in 1678	Last in 1706 list 1678
268	Lucy, Sir Kingsmill [?]	26 Nov 1668	Student of Lincolns Inn, M.P., etc (Foster)	Inactive	Regular till c. 1672; 13 yrs' arrears in 1684	1730
269	Locke, John [1632]	"	The philosopher (DNB & M. Cranston, 1957)	Slightly active	Never in accounts	Last in 1698 list Never in lists
270	Finch, Daniel [1647]	"	Heir to Earl of Nottingham & later 2nd Earl (DNB & H. Horwitz, 1968)	Inactive (never admitted)		

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
271	Chamberlayne, Edward [1616]	3 Dec 1668	Miscellaneous writer, etc (DNB)		Barely active (1669, 1673)	Regular till c. 1673; 12 yrs' arrears in 1684	1st, 3th	Expelled 1685	1703
272	Banks, Sir John [c. 1627]	10 Dec 1668	Merchant & Kentish gent. (D. C. Coleman, 1963)	Council 1670, 1674	Attends when on Council, esp. 1674	Regular	1st, 3rd, 5th	Last in 1681 list	1699
273	Titus, Silius [1623]	14 Jan 1669	Politician & courtier (DNB)		Inactive (never admitted)	Never in accounts		Never in lists	1704
274	Hoare, James [?]	21 Jan 1669 (admitted 18 Feb 1675)	Son of James Hoare senior (Fr167) ( <i>Mid. Temp.</i> <i>Adm. Reg.</i> , I, 168)		Inactive (not in lists till 1675)	Regular from 1675, when first in accounts			1679
275	Horneck, Anthony [1641]	28 Jan 1669	Divine, preacher at the Savoy, etc (DNB)		Barely active (1672 & cf. III, 372)	Only admission money & half a year's subs in 1672 ever paid	3rd	Withdraws 1682	1697
276	Castle, George [1635]	4 Feb 1669	London physician & author (DNB)		Barely active (1669)	Only admission money ever paid			1673
277	Malpighi, Marcello [1628]	4 March 1669	Italian natural philosopher (DSB)		Frequent correspondent	Foreign member			1694
278	Jeffreys, Edward [?]	28 Oct 1669	? (M.A. & LL.D.) (See p. 43)		Barely active (1670)	Regular			Last in 1671 list
279	Barrington, Thomas [c. 1648]	18 Nov 1669	Essex gent. & army colonel (Venn & <i>Cromwell</i> , II, 45)	Council 1673, 1677, 1679	Slightly active	Regular	1st, 5th		1681
280	Hjarne (Hjarne), Urban [1641]	"	M. Noble <i>House of</i> Swedish physician & chemist (DSB)		Inactive	Foreign member			1724
281	de Mère de Souza, Gaspar [?]	"	Professor of Mathematics at Coimbra, etc (Oldenburg, V, 569-71)		Inactive	Foreign member			Last in 1684 list
282	Stiernhielm, Georg [1598]	9 Dec 1669	Swedish statesman & scholar ( <i>Now. Biog. Univ.</i> )		Inactive	Foreign member			1672
283	Heimfeld, Gustav [1651]	21 April 1670	Swedish scholar (Bullock)		Inactive	Foreign member			1674
284	Monceaux, André [?]	15 Dec 1670	French virtuoso & traveller (Birch, II, 461)		Inactive	Foreign member		Never in lists	(?)

285	Williams, Sir John [1642]	23 March 1671	Kentish gent. (GEC <i>Bar.</i> , II, 168)	Inactive	Regular till c. 1677; 4 yrs' arrears in 1680	1st, 3rd	1680
286	Matthews, Sir Philip [c. 1642]	"	Essex gent. (Venn & GEC <i>Bar.</i> , III, 249)	Inactive (never admitted)	Never in accounts	Never in lists	1685
287	Reading (Redding), Robert (baronet 1675) [c. 1640]	2 Nov 1671	Irish politician, etc (GEC <i>Bar.</i> , IV, 208)	Slightly active, mainly in early 1680s	Irregular but persistent till 1681; some exemption for absence in Ireland	(absent)	1689
288	Lister, Martin [1639]	"	Physician & natural philosopher (DNB & DSB)	Frequent corres- pondent in 1670s; very active from 1683	Regular 1672-5; nothing paid thereafter	1st, 3rd, 4th	1712
289	Grew, Nehemiah [1641]	"	Physician & botanist (DSB & DSB)	Very active 1683	(see p. 50) Exempt	2nd, 3rd, 4th	1712
290	Newton, Isaac [1642]	11 Jan 1672 (admitted 18 Feb 1675)	Lucasian Professor at Cambridge (DNB & L.T. More, 1934, F. E. Manuel, 1968)	Frequent correspondent	Payments in 1672-3 only; thereafter ? exempt	2nd, 3rd, 4th	1727
291	Holles, Sir Frescheville [1641]	18 Jan 1672	Naval officer, etc (DNB)	Inactive (not admitted)	(see p. 50) Never in accounts	Never in lists	1672
292	Tillotson, John [1630]	25 Jan 1672	Dean & Archbishop (1691) of Canterbury (DNB)	Inactive (but cf. IV, 66, 217)	Payments 1672-3 only; exempt in return for books & £10, 1684	1st, 3rd, 5th	1694
293	Cassini, Giovanni Domenico [1625]	22 May 1672	Astronomer & Member of Académie des Sciences (DSB)	Frequent correspondent	Foreign member		1712
294	Vernon, Francis [1637]	"	Diplomat & traveller (DNB)	Barely active (frequent corresp., mainly before election)	Nothing ever paid	3rd	1677
295	Howard, Henry (Earl of Arundel 1678; 7th Duke of Norfolk 1684) [1655]	30 Oct 1672	Landed aristocrat & statesman (DNB)	Inactive	Regular till c. 1677; 8 yrs' arrears in 1684	1st, 3rd, 5th	1701



No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	1670s lists	Expulsion/ resignation	Death
296	Howard, Thomas (styled Lord Thomas from 1677) [?]	6 Nov 1672	2nd son of the Earl Marshall; courtier (Evelyn <i>Diary</i> , III, 329n)		Inactive	Payments in early 1670s only; 9 yrs' arrears in 1684	1st, 3rd, 5th		1689
297	Bernard, Edward [1638]	9 April 1673	Savilian Professor of Astronomy at Oxford, etc (DNB)		Inactive	Only admission money paid; exempt	3rd, 4th		1696
298	Leibniz, Gottfried Wilhelm [1646]	"	German philosopher & mathematician (DSB)		Frequent correspondent	Foreign member			1716
299	Somerset, Charles, Lord Herbert (4th Marquis of Worcester, 1682) [1660]	4 June 1673	Young aristocrat, M.P., etc (Foster & GEC <i>sub</i> Beaufort)		Inactive	Payments in 1676 only; 8 yrs' arrears in 1684	3rd, 5th		1698
300	Howard, John Stafford [?]	6 Nov 1673	Son of Lord Viscount Stafford (GEC <i>sub</i> Stafford)		Inactive	Nothing ever paid (first in 1676 accounts)	5th	Last in 1693 list	1714
300a	Isham, Sir Justinian	"	Re-election: see above, no. 141						
301	Lawrence, Sir John [?]	27 Nov 1673	Merchant, former Lord Mayor of London, etc (Woodhead)	Council 1674, 1678, 1680	Slightly active	Exempt		Expelled 1685	1692
302	Ford, Sir Richard [1613]	"	London merchant, alderman & M.P. (Woodhead & Whitcombe, 201)		Inactive	Never in accounts			1678
303	Player, Sir Thomas [?]	"	Merchant, Chamberlain of London, etc (DNB)		Inactive	Exempt		Expelled 1685	1686
304	Winn (Wynne), Rowland [?]	"	London merchant, alderman, etc (Beaven, II, 85)		Inactive	Never in accounts			1676
305	Birch, Andrew [1652]	"	Physician practising in Manchester (Venn & Innes Smith, 22)		Inactive	Nothing ever paid			Last in 1690 list
306	Robartes, Francis [1650]	11 Dec 1673	Politician with musical interests (DNB)		Inactive	Regular till c. 1676; 7 yrs' arrears paid in 1682; regular 1682-5			1718

307	Strangeways, Giles [1615]	"	Dorset M.P.; P.C. (1675) (Foster & Whitcombe, 208) ? ('M.D.')	Inactive (never admitted)	Never in accounts	1675
308	Le Gassick, John [?]	"	(See p. 43)	Inactive	Never in accounts	1674
309	Sluse, René Francois de [1622]	16 April 1674	Flemish divine & mathematician (DSB)	Frequent correspondent	Foreign member	1685
310	Castell, Edmond [1606]	"	Professor of Arabic at Cambridge, etc (DNB)	Inactive	Regular	1685
311	Pacichelli, Giambattista [?1640]	"	Roman abbot, diplomat & author ( <i>Nouv. Biog. Univ.</i> )	Inactive	Foreign member	1702
312	Jenkes, Henry [?]	30 Nov 1674	Gresham Prof. of Rhetoric, 1670-6, & Fellow of Caius College, Cambridge (DNB)	Inactive	Exempt	1697
313	Moore, Sir Jonas [1617]	3 Dec 1674	Mathematician, Surveyor General of Ordnance, etc (DNB)	Active in late 1670s	Only one quarter's subs. ever paid	1679
314	Whitchote, Sir Paul [1643]	14 Jan 1675	Cambridgeshire gent. (Venn & GEC <i>Bar.</i> , III, 22)	Inactive	Regular till 1680 when pays £10 and exempted	1721
315	Milles, Daniel [?]	"	London divine (Venn) Council 1675-6	Slightly active while on Council	Regular till 1678; subsequent payment in 1683 only	1689
316	Percivale, Sir Philip [1656]	18 Feb 1675	Wealthy young baronet & traveller (HMC <i>Egmont</i> II)	Inactive	Small contribu- tion in 1676 only	1680
317	Savile, Sir George, Viscount Halifax (Earl of Halifax 1679; Marquis 1682) [1633]	30 Nov 1675	Courtier & politician (DNB & H. C. Foxcroft, 1898)	Barely active (cf. III, 366)	Payments at first only; 7 yrs' arrears by 1685	1695
318	Mapletoft, John [1631]	10 Feb 1676	London physician & divine; Gresham Professor of Physic (DNB)	Fairly active 1676-9; barely thereafter	Exempt	1721
319	Sheeres, Henry [?]	"	Military engineer at Tangier (DNB)	Inactive (never admitted)	Never in accounts	1710

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	Expulsion/ resignation	Death
320	Hall, Henry [?]	10 Feb 1676	Gloucestershire gent.; sheriff 1688 ( <i>Trans. Soc.</i> , LXI, 291)	Council 1677, 1681	Slightly active	Irregular but persistent		Last in 1692 list
321	Travagino, Francisco [?]	"	Venetian natural philosopher (Oldenburg, III, 300-3)		Occasional correspondent	Foreign member		Last in 1715 list
322	Edgcumbe, Sir Richard [1639]	30 Nov 1676	Cornish gent. & M.P. (Foster)		Inactive	Only admission money ever paid	Expelled 1685	1688
323	Clutterbuck, Sir Thomas [?]	"	Consul of Leghorn & London merchant (Shaw, II, 243)		Inactive	Only admission money ever paid	Expelled 1682	(?)
324	King, John [1649]	"	Gresham Professor of Rhetoric, etc (Venn & Ward <i>Lives</i> , 329)		Inactive (never admitted)	Never in accounts	Never in lists	(?)
325	Croke, Sir George [?]	8 Feb 1677	High Sheriff of Oxfordshire (1664), etc (Foster)		Inactive	Only admission money ever paid		1680
326	Baldwin, Christian Adolph [1632]	"	Electoral official in Saxony, member of Acad. Nat. Curiosum & author (Bullock)		Occasional correspondent	Foreign member		Last in 1681 list
327	Flamsteed, John [1646]	" (admitted 13 Feb 1678)	Astronomer Royal (DNB & DSB)	Council 1681, 1683, 1685	Active & frequent correspondent	Exempt	Last in 1708 list	1719
328	Ent, George [?]	8 Nov 1677	Lawyer & author ( <i>Wood Athenae Oxonienses</i> , ed. Bliss, III, 85)		Slightly active	Regular payments in 1678		1679
329	Hill, Oliver [?]	"	Religious pamphleteer, etc (Venn & Hill's works)		Active in 1677-8 only	Only admission money ever paid	Never in lists	(?)
330	Wyndham, [?]	6 Dec 1677	? (see p. 43)		Inactive (never admitted)	Never in accounts	Never in lists	(?)
331	Gale, Thomas [?1635]	Admitted 6 Dec 1677	High Master of St Paul's School; Dean of York (1697); scholar (DNB)	Secretary 1679-81; Council 1678-81, 1683, 1685	Very active	Only admission money ever paid; exempt 1683		1702

332	Plot, Robert [1640]	"	Keeper of the Ashmolean & natural philosopher (DNB & DSB)	Secretary 1682; Council 1680, 1682-3	Active & frequent letters from Oxford	Exempt	1696
333	Smith, Thomas [1638]	"	Oxford divine & scholar (DNB)		Barely active	Only admission money ever paid	1710
334	Colleton, Sir Peter [1635]	13 Dec 1677	Politician & colonialist (GEC <i>Bar.</i> , III, 161-2)		Inactive (never admitted)	Never in accounts	1694 Never in lists
335	Herbert, John [?]	"	? (see p. 43)	Council 1685	Fairly active	Regular	Last in 1706 list 1723
336	Wheeler (Wheeler), George (knighted 1682) [1650]	"	Virtuoso & traveller; ordained c. 1683 (DNB)		Slightly active (1678)	Only admission money ever paid	Expelled 1685
337	Langham, Sir James [c. 1621]	17 Jan 1678	Northamptonshire gent. & M.P. (Venn & GEC <i>Bar.</i> , III, 31)		Inactive (never admitted)	Never in accounts	1699 Never in lists
338	Kerckring, Theodor [1640]	"	Physician & physiologist of Amsterdam ( <i>Allg.</i> <i>Deutsch. Biog.</i> )		Inactive	Foreign member	1693
339	Chetwynd, Walter [?]	31 Jan 1678	Staffordshire gent. & antiquary (DNB)		Slightly active	Only admission money ever paid	1693
340	Dickinson (Dickenson), Edmund [1624]	"	Royal physician, alchemist & author (DNB)		Inactive (cf. IV, 488) (never admitted)	Never in accounts	1707 Never in lists
341	Lane, Joseph [?]	"	Lawyer & Comptroller of the Chamber of London (Venn & Birch, III, 410)		Slightly active as legal adviser (1681)	Exempt	1728 Last in 1699 list
342	Aston, Francis [c. 1645]	30 Nov 1678	Fellow of Trinity College, Cambridge, traveller, etc (Venn & N. & R.R.S., III (1940), 88-92)	Secretary 1681-5; Council 1680-5	Very active	Regular till exempted in 1683	1715
343	Mayow, John [1640]	"	Oxford physician & natural philosopher (DNB & DSB)		Inactive (never admitted)	Never in accounts	1679 Never in lists
344	Bembe (Bemde), John [?]	"	? (see p. 43)		Slightly active (1678)	Fairly regular	Last in 1710 list

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	Expulsion/ resignation	Death
345	Perry, William [c. 1650]	30 Nov 1638	Fellow of Trinity College, Cambridge, Gresham Prof. of Music (1681), etc (Ward <i>Lives</i> , 232-3) German scholar living in London ( <i>Allg. Deutsch. Biog.</i> )	Council 1679-80, 1682, 1685; Librarian 1679	Frequent attendance in 1680s	Exempt		1696
346	Clüver, Detlev [?]	"	"	"	Active	Regular		1708
347	Halley, Edmond [1656]	"	"	"	Very active, esp. from 1683	Exempt		1742
348	Moxon, Joseph [1627]	"	"	"	Barely active (1679, 1680)	Only admission money ever paid	Expelled 1682	1700
349	Hannisius, David [?]	"	"	"	Inactive	Foreign member		1681
350	Spanheim, Ezechiel, Freiherr von	6 Feb 1679	"	"	Inactive	Foreign member, but admission money paid		1710
351	Sheridan, Thomas [1646]	"	"	"	Inactive	Payments in 1679, 1681 only	Expelled 1685	(?)
352	Waller, Sir William [?]	20 Feb 1679	"	"	Inactive (never admitted)	Never in accounts	Never in lists	1699
353	Tyson, Edward [1650]	1 Dec 1679	"	"	Very active	Exempt		1708
354	Paman, Henry [1626]	"	"	"	Barely active (1680)	Exempt		1695
355	Napper (Naper), William	"	"	"	Inactive	Payments in 1680, 1682	Expelled 1685	(?)
356	Sarotti, Giovanni Ambrosio [?]	"	"	"	Barely active	Foreign member, but admission money paid		Last in 1714 list

357	Bridgeman, William [1646]	18 Dec 1679	Govt. official, etc (Foster & Evelyn <i>Diary</i> , IV, 197n)	Inactive	Exempt	1699
358	Pigott, Thomas [1657]	" (admitted 13 July 1681)	Fellow of Wadham College, Oxford, etc (Foster)	Barely active (1694)	Payments in 1681, 1683 only	1686
359	Heusch, Johann Christian [?]	29 Jan 1680	Physician to the Elector Palatine (Birch, IV, 5)	Inactive	Foreign member, but admission money paid	Last in 1684 list
360	Firmin, Thomas [1632]	"	London businessman & philanthropist (DNB)	Inactive	Regular	Last in 1688 list
361	Houghton, John [?]	"	Tea dealer & writer (DNB)	Active	Regular	1705
362	Leeuwenhoek, Antoni van [1632]	"	Dutch natural philosopher (DSB)	Frequent correspondent	Foreign member	1723
363	Perkins, Peter [?]	5 Feb 1680	Mathematical master at Christ's Hospital (Taylor, 274)	Active in 1680	Never in accounts	In 1680 list only
364	Moore, Jonas (knighted Aug. 1680) [?]	11 March 1680	Son of Sir Jonas Moore & his successor as Surveyor General of Ordnance (DNB <i>sub</i> Sir J. M. senior)	Inactive	Payments in 1680, 1682 only	Last in 1681 list
365	Nelson, Robert [1665]	1 April 1680	Wealthy young man on Grand Tour; later, religious writer, etc (DNB)	Inactive (not in lists till 1696)	Not in accounts till 1696	1715
366	Clench, Andrew [?]	"	London physician, F.R.C.P. (DNB)	Barely active	Fairly regular	Last in 1684 list
367	Wood, John [?]	"	Naval captain & marine surveyor (Taylor, 261-2)	Barely active	Never in accounts	1681
368	Pighi, Giacomo [1647]	29 April 1680	Professor of Anatomy at Padua (Bulloch)	Inactive	Foreign member	Never in lists
369	Slare (Slar), Frederic [?1647]	Admitted 16 Dec 1680	London physician & natural philosopher (DNB)	Very active	Only admission money ever paid	1727
370	Wood, Robert [?1622]	6 April 1681	Accountant General of Ireland, Mathematics master at Christ's Hospital, etc (DNB)	Active	Regular	1685

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	Expulsion/ resignation	Death
371	Deane, Sir Anthony [1638]	6 April 1681	Ship-builder & Commissioner of the Navy (DNB)	Council 1682, 1684	Active	Regular		1721
372	Chamberlen (Chamberlayne), Hugh [1664]	"	Court physician, etc (DNB)		Barely active (1684)	Regular	Last in 1700 list	1728
373	Percivale, Sir John [1660]	"	Irish office-holder (Foster)		Inactive	Only admission money ever paid		1686
374	Meredith, Roger [1637]	"	Gresham Professor of Civil Law, Master of Chancery, etc (Venn)	Council 1682, 1683, 1685	Regular attendance	Exempt		1701
375	Rogers, John [1647]	"	Chaplain to the Earl of Berkeley (Foster)		Inactive (never admitted)	Never in accounts	Never in lists	1715
376	Salisbury (Salisbury), Oliver [?]	"	Attorney of the Middle Temple ( <i>Mid. Temp.</i> <i>Adm. Reg.</i> , I, 188; Birch, IV, 63, 187)		Barely active (1683)	Payments in 1681-3 only	Last in 1687 list	
377	Novell, Thomas [?]	"	Physician & F.R.C.P. (Munk)		Inactive (never admitted)	Never in accounts	Never in lists	1686
378	Ward, Sir Patience [1629]	"	Merchant & alderman; Lord Mayor of London (DNB)		Inactive	Exempt		1696
379	Waller, Richard [c. 1650]	27 April 1681	Hertfordshire gent. & virtuoso (N. & Q., 8 ser 9 (1896), 465; N. & R.R.S., III (1940), 92-4)	Council 1684	Very active	Regular		1715
380	Sambrooke, Jeremy (knighted 1682) [?]	"	Merchant; Deputy Governor of E. India Co.; etc (Woodhead)		Inactive (but cf. IV, 90)	Regular 1682-4; not in accounts in 1685	Last in 1698 list	1705
381	Braddon, Lawrence [?]	"	Barriester (DNB)		Inactive (never admitted)	Never in accounts	Never in lists	1724
382	Goodwyn, [?]	"	Merchant (Birch, IV, 63)		Inactive (never admitted)	Never in accounts	Never in lists	(?)



			'M.D. of Francfort' (Birch, IV, 65)		Acknowledges election only (not in lists till 1688)	Foreign member	Last in 1715 list
383	Jordis, Johan Philip [?]	"			Inactive		
384	Eve, Henry [?]	9 Nov 1681	'Captain' (see p. 44)		Inactive	Only admission money ever paid	Expelled 1685
385	Payne, William [1650]	"	London divine & controversialist (DNB)		Slightly active (1683-4)	Regular	1696
386	Penn, William [1644]	"	Quaker & Founder of Pennsylvania (DNB & C.O. Peare, 1957)		Inactive (never admitted)	Never in accounts	Never in 1718 lists
387	Gwyn (Wynne), Sir Rowland [1660]	23 Nov 1681	Radnorshire landowner & politician (Foster)		Barely active (1683)	Payments in 1682-3 only	Last in 1719 list
388	Krull (Crull), Jodocus [?]	"	M.D. & miscellaneous author (DNB)		Inactive (not in lists till 1684)	Only admission money ever paid	Expelled 1685
389	Robinson, Richard [?]	"	Physician & F.R.C.P. (Venn & Munk)		Inactive	Only admission money ever paid	(Not in 1733 lists 1706- 30, but returns 1731-3)
390	Lodwick, Francis [1619]	30 Nov 1681	London merchant & language planner (V. Salmon, 1972)		Fairly active	Regular	1694
391	Leti, Gregorio [1630]	"	Itinerant Protestant Italian scholar ( <i>Nouv. Biog. Univ.</i> )		Inactive	Foreign member	Last in 1683 list
392	Dorislaus, Isaac [?]	"	Manager of the Post Office, etc (DNB)		Inactive (never admitted)	Never in accounts	Never in 1688 lists
393	Justel, Henri [1620]	7 Dec 1681	Hugenot librarian (DNB)		Active, & frequent correspondent	Never in accounts	1693
394	Blackburne, Samuel [?]	14 Dec 1681	? (see p. 43)		Inactive (never admitted)	Never in accounts	Never in (?) lists
395	Haddu, Muhammad ibn [?]	26 April 1682	Moroccan ambassador (Birch, IV, 144)		Inactive	Foreign member	Never in (?) lists
396	Mills, Walter [1654]	12 July 1682	Physician & F.R.C.P. (Venn)		Barely active (1685)	Regular	1726

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	Expulsion/ resignation	Death
397	Turnor, John [c. 1650]	8 Nov 1682	London divine, etc (Venn)		Inactive	Only admission money ever paid	Last in 1688 list	(?)
398	Paget (Pagitt), Edward [?]	"	Fellow of Trinity College, Cambridge, & mathematics master at Christ's Hospital (Taylor, 278)		Active	Exempt (after paying admission money)	Last in 1703 list	
399	Papin, Denis [1647]	(?)	French natural philosopher & inventor (DNB & DSB)	Scribe & operator 1679-85	Very active, esp. from 1684	Never in accounts		1712
400	Borghese, Marcantonio, Prince [1660]	29 Nov 1682	Italian nobleman ( <i>Dizionario Biografico degli Italiani</i> )		Inactive	Foreign member	Never in lists	1729
401	Faria, José de [?]	30 Nov 1682	Portuguese diplomat (Birch, IV, 167)		Inactive	Foreign member	Last in 1691 list	Last in 1691 list
402	Chardin, Sir John [1643]	"	Jeweller & traveller (DNB)		Inactive	Never in accounts	Expelled 1685	1713
403	Beuningen, Koenraad van [1622]	13 Dec 1682	Dutch diplomat ( <i>Nieuw Nederlandisch Biografisch Woordenboek</i> )		Inactive	Foreign member	Last in 1684 list	1693
404	Pitt, Robert [1633]	20 Dec 1682 (admitted 8 April 1685)	Physician & Professor of Anatomy at Oxford (DNB)		Slightly active in 1685; previously correspondent	First in 1685 accounts, when regular	Withdraws 1707	1713
405	Gould, William [c. 1632]	2 May 1683	Physician & Fellow of Wadham College, Oxford (Foster)		Inactive	Never in accounts	Last in 1684 list	1714
406	Haynes (Haines), Edward [?]	"	? Herts. gent. & virtuoso (see p. 44)	Council 1685	Fairly active	By 1685, only admission money paid		Last in 1708 list
407	Werenhall, Edward [1636]	4 July 1683	Bishop of Cork; translated to Kilmore 1699 (DNB)		Barely active	Only admission money ever paid		1713
408	Mullen (Moulin, Molines), Allan [? 1653]	18 July 1683	Physician prominent in Dublin Philos. Soc. (Hoppen, 37-8)		Inactive	Only admission money ever paid		1690

409	Willoughby, Charles [c. 1630]	25 July 1683	Dublin physician, etc (Hoppen, 31; Venn)	Inactive	Only admission money ever paid	1694
410	Vincent, Nathaniel [?]	30 Nov 1683	Divine & Fellow of Clare College, Cambridge (Venn)	Fairly active	Regular	Withdraws 1722 1687
411	Bailey, Arthur [?]	"	London merchant (E.S.O., IV, 156; Davies)	Slightly active	Regular	Last in 1711 list 1721
412	Musgrave, William [?1655]	19 March 1684	Secretary of Oxford Philos. Soc. & later physician practising in Exeter (DNB)	Secretary 1684-5; Council 1684	Pays admission money, but not in accounts	
413	Munchausen, Benjamin von [?]	30 April 1684	'Doctor of Law and a native of Dantzick' (Birch, III, 351)	Inactive	Regular (reduced rate)	Never in lists
414	Frémont d'Ablancourt, Nicolas [?1625]	12 Nov 1684	French diplomat & writer ( <i>Nowv. Biog. Univ.</i> )	Acknowledges election only	Foreign member	1693
415	Monson, James [1660]	"	Hertfordshire gent. (Venn & Clutterbuck <i>Herts.</i> , II, 65)	Inactive	Only admission money paid	1688
416	Beaumont, Richard [1654]	19 Nov 1684	Yorkshire gent. (Venn)	Inactive	Nothing ever paid	Last in 1698 list 1689
417	Baker, Thomas [?1625]	"	Devonshire cleric & mathematician (DNB)	Inactive (never admitted)	Never in accounts	Never in lists
418	Pitfield, Alexander [1659]	19 Nov. 1684	Wealthy Middlesex gent. & virtuoso ( <i>Annals of Science</i> , XXX (1973), 87)	Active after 1685	Only admission money paid in 1685	1728
419	Robinson, Tancred [c. 1657]	"	Physician & naturalist (DNB)	Active	Regular	1748
420	Hyde, Henry, 2nd Earl of Clarendon [1638]	1 Dec 1684	Politician & courtier (DNB)	Inactive (but cf. IV, 361)	Never in accounts	1709
420a	Vaughan, John, Lord	21 Jan 1685	Re-election: see above, no. 63			
421	Sloane, Hans (baronet 1716) [1660]	"	Physician, naturalist, etc (DNB & G. R. de Beer, 1953, E. St. J. Brooks, 1954)	Very active	Regular	1753

No.	Name and title(s) and [date of birth]	Date elected	Brief biographical note and principal source	Offices held in Royal Society	Activity as seen in minutes	Payments of subscriptions	Expulsion/ resignation	Death
422	Herbert, Thomas, 8th Earl of Pembroke & Montgomery [1656]	13 May 1685 (admitted 26 Jan 1687)	Lord Lieutenant of Wiltshire, etc (DNB)		Slightly active after 1685	Never in accounts		1733
423	Villermont, Esprit Cabart de [c. 1617]	13 May 1685	French virtuoso with renowned library (Bulloch)		Frequent correspondent	Foreign member	Last in 1697 list	1707
424	Beaumont, John [?]	"	Somerset surgeon & naturalist (DNB)		Occasional correspondent	Only admission money ever paid	Never in lists	1731
425	Leigh, Charles [1662]	"	Lancashire physician & naturalist (DNB)		Occasional correspondent	Never in accounts	Never in lists	?1701
426	Bulkeley, Sir Richard [c. 1661]	25 Nov 1685	Irish gentleman, M.P. & virtuoso (DNB)	Council 1685	Correspondent before election; active in 1686	Nothing paid		1710

NOTE: an alphabetical index of Fellows with dates of election will be found in Appendix VI of *The Record of Royal Society, fourth edition, 1940*.