

Winter 1980

BROKERS OF THE WORD: AN ESSAY IN THE SOCIAL HISTORY OF THE EARLY AMERICAN PRESS, 1639-1783

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University of New Hampshire

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EFCKERS OF THE WORD:
AN ESSAY IN THE SOCIAL HISTORY OF
THE EARLY AMERICAN PRESS, 1639-1783

BY

CHARLES WETHERELL

B.A., St. Lawrence University, 1969

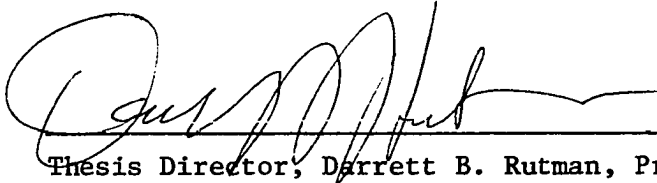
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in Partial Fulfillment of
the Requirements for the Degree of

Doctor of Philosophy
in
History

December 1980

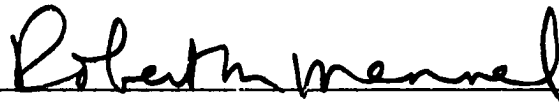
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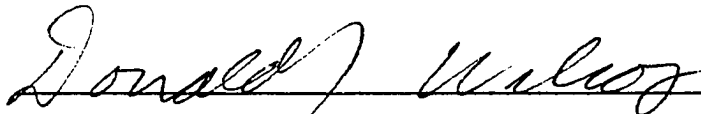
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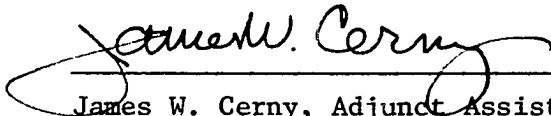
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ABSTRACT

BECKERS OF THE WORD:
AN ESSAY IN THE SOCIAL HISTORY OF
THE EARLY AMERICAN PRESS, 1639-1783

by

CHARLES WETHERELL

University of New Hampshire, December, 1980

This dissertation explores the social context of printing and publishing from 1639 to 1783 through an analysis of the complete extant record of colonial printing and a collective biography of the printers, publishers and booksellers who comprised the press. Two general areas are explored. The first involves the size, stability, and growth of the press, the second, the structure of the trade at large.

The early American press grew like the population it served and was characterized by a marked stability. The broad patterns of production and growth suggest that how much was printed depended largely upon the number of persons in the trade, which, in turn, depended upon successful

demographic experiences. In all areas of colonial America, families formed the underlying structure of the trade, and their fortunes were those of the trade itself.

The nature and extent of association among tradesmen is also explored. Here, the professional and familial networks of tradesmen are examined both as phenomena of personal association in colonial America and as the structure through which ideas, in the form of printed works, flowed from place to place. The extent of trade networks reached its zenith early in the eighteenth century, and thereafter declined as the size of the trade exceeded the ability of individuals to form associations with other tradesmen. The diminishing networks of tradesmen contributed to a marked provincialism of the early American press which was reflected in the declining inter-regional diffusion of printed works as the eighteenth century progressed.

CHAPTER ONE

ISSUES

When Benjamin Franklin walked into Philadelphia in the Fall of 1723 he was seventeen, with neither money nor work. Yet he had a trade. Franklin was a printer, something only nine other men in the American colonies could claim at the time. Within five years Franklin had worked for each of the two printers in town, journeyed to London and back, left and reentered the trade, formed a partnership, and opened a shop. Within ten years he had started a newspaper, acquired official patronage, dissolved his first partnership, and underwritten a printing house in Charleston, South Carolina. By 1748, when he retired from active business, Franklin had sponsored three more printing concerns, one in Philadelphia, one in New York, and another in Antigua. He had become postmaster of Philadelphia and clerk of the Pennsylvania Assembly. And he had formed a partnership that would maintain his financial interest in the trade until 1765. In the twenty-five years he was in active business, Franklin sponsored four printing houses in addition to his own, secured a living substantial enough to allow him to retire, and established a network of trade associations from New

England to the West Indies.

 Tempting as it may be to attribute Franklin's unqualified success entirely to his native genius, there is the nagging question of whether he may simply have been a man in the right place at the right time, whether someone else might have done as well yet gone unnoticed because he did not follow Franklin's later path. Such a question raises other, larger questions about printing and publishing in the American colonies. What was the trade like? How did it grow and how did growth affect tradesmen? How many people were involved, and in what capacity? Where, and for how long? These are questions that can be asked of any profession or trade. Yet Franklin's trade was special for its business was communication, the transmission of information and ideas. Its members were brokers of the printed word, and the internal structure of their trade must have affected what was brokered. Yet how the trade functioned is virtually unknown. And exactly what impact its structure and growth might have had on how much or what was actually printed is a question that has not been asked before. That question constitutes the central focus of this work.

 Fundamentally, the issues are ones of context and the questions are those of structure -- of size, shape, growth, and interaction. Some sense of the collective whole is

needed if Franklin's experience is to be understood. Yet to this point no study has offered this collective whole, in large measure because of the very size of the colonial press. Between 1639, when printing began in Massachusetts, and the close of the Revolution in 1783 more than 23,000 imprints were issued from colonial presses, representing the work of more than 3,600 individual, corporate, and governmental authors. To this must be added 172 separate newspapers whose publication ranged from one to several thousand issues. Producing all of this were more than 650 printers, publishers, editors, and booksellers, in eighty-four locales, whose involvement in the trade ranged from one to more than a thousand extant works. From this perspective, very clearly, Franklin, like the trade itself, was only one of many.

Dissecting anything so large requires special care for the questions are as important as the answers. While sometimes simple, they are more often complex. Following Franklin through his twenty-five years of active business will allow us to see the fundamental structure and operation of the trade. It will also provide an opportunity both to raise issues and to pose specific questions about the trade.

In 1718, at the age of twelve, Franklin was apprenticed to his brother James, who had just begun business in

Boston.[1] In that year only five other men were printing in New England, four in Boston and one in New London. That Benjamin was apprenticed to his brother raises the issue of family in the trade, and, more specifically, how prevalent it was. Two of the four Boston printers at the time, Bartholomew Green and Samuel Kneeland, were related and Kneeland had been apprenticed to Green. The New London printer, Timothy Green, was Bartholomew's brother and, like Kneeland, had served his apprenticeship with Green.[2] In this respect Franklin's experience does not appear unusual. Yet what this might have meant is an entirely different matter.

At least in Franklin's case the family tie was strained, James being too much the master and not enough the brother. After five years Benjamin and James quarreled once too often and Benjamin announced he was through. James retaliated by informing the other printers in town that Benjamin might seek work with them but that he was still a bound apprentice. Benjamin then decided on New York.[3]

Journeying to New York in September of 1723, Franklin sought out the town's only printer, William Bradford.[4] Bradford could not give Franklin work but said his son in Philadelphia, Andrew Bradford, might inasmuch as his "principal hand," Aquila Rose, had just died.[5] On Franklin went to Philadelphia, traveling by way of Burlington, New

Jersey, where he was invited to set up shop. He declined, as he said, because he had no equipment. When Franklin arrived at Andrew Bradford's shop he found the senior Bradford there. Again, Franklin was exposed to a family in the trade, something that may have appeared so normal that he never mentioned it. Andrew had no work for Franklin but he thought the other printer in town, Samuel Keimer, might, for Keimer had just arrived from England and was in the process of establishing his shop.[6]

Franklin went to Keimer's but not alone. The elder Bradford took him, and for what purpose we may surmise. Keimer could not give Franklin work, but after testing Franklin's composing skills, promised him odd jobs now and then. During this test Bradford and Keimer talked and, as Franklin recalled, Bradford, a "crafty old Sophister," got Keimer to "explain all his Views, what Interest he rely'd on, and in what manner he intended to proceed," in short, the nature of Bradford's son Andrew's competition.[7] Within the month Keimer took Franklin on full time, but in the interim Franklin worked occasionally for Bradford, and, indeed, lived with him until Keimer found him a room.

That Franklin would have sought out work in New York or Philadelphia does not seem unusual at all. He had a trade and needed a job. But it is exactly this ordinary behavior that hints at the fundamental structure of the trade,

specifically, the associations among its members. By the time Franklin went to work for Keimer he had met, worked for, or lived with every printer south of Connecticut. Franklin knew, or at the very least had met, every printer in Boston.[8] He knew the only printer in New York, and had worked for the only two in Philadelphia. Thus the range of trade associations Franklin had at the age of seventeen was virtually the entire printing establishment in the American colonies.

Important also is the way Franklin came to know these men, that is, through family and by physical movement. In Boston, it was because he was in the trade and he was in the trade because of family. In New York and Philadelphia it was because he traveled there. But from New York it was also a matter of who knew whom, and this hints at the network-like nature of trade associations flowing from family ties and friendships, the only substitute for which was actual physical movement. Franklin met William Bradford in New York. Bradford had a son who had lost a journeyman, and this led Franklin to Philadelphia. Andrew Bradford knew Keimer but William Bradford did not, at least not until he took Franklin to see if he could find him a job. In all instances Franklin acquired his associations through face to face encounters. And the nature of association within the trade is a central issue not only because it raises the

questions of what kinds existed and how far they extended, but also because it reveals the element of chance. If the vagaries of chance meetings, of who knew whom, dictated the careers of other tradesmen as much as they did Franklin's, then the course of growth in the early American press might well have taken very unusual turns.

Franklin's first contact with official patronage is not only a case in point; it raises another issue. Shortly after he arrived in Philadelphia Franklin wrote to his brother-in-law, Robert Holmes, a merchant in Newcastle, Delaware. The letter reached Holmes while he was in the company of Sir William Keith, governor of Pennsylvania.[9] Franklin's situation, or more particularly his trade, interested Keith who, along with John French, a member of his council, later sought out Franklin in Philadelphia. Keith encouraged Franklin to set up shop and both men assured Franklin of "their Interest and Influence in procuring the Publick Business" of both Pennsylvania and Delaware.[10] The terms "Interest" and "Influence" are from Franklin's later vocabulary, one informed by his experience with British patronage, but they describe a very real phenomenon which formed a key element in Franklin's success. Keith offered Franklin a working association that involved his "Interest." In general terms, this was the kind of association William Bradford persuaded Samuel Keimer to

reveal when Bradford took Franklin to Keimer's shop.

Franklin's encounter with Keith led Franklin to seek money from his father -- again a family tie -- to begin business. When Franklin's father refused, Keith offered to assume the cost, and this led Benjamin to London to secure a press and type. Keith's promise proved hollow, however, and Franklin found himself in London without funds. Thomas Denham, a merchant Franklin had met on the voyage -- a chance encounter made possible by Franklin's movement -- advised Franklin to get a job in printing in England, save money, and plan on returning to Philadelphia, advice Franklin followed for nearly eighteen months. But in the Fall of 1725 Denham asked Franklin to abandon printing, return to Philadelphia, and learn the merchant's trade, after which he would set up Franklin in the West Indies. Franklin agreed and, as he thought, "took leave of Printing . . . for ever."^[11] But in February 1726 Denham died, leaving Franklin again with nothing. Denham's death raises the question of what effect mortality had on the trade. Much like the death of Bradford's journeyman, Aquila Rose, which had led Franklin to Philadelphia in the first place, Denham's death led Franklin to return to printing. To what extent the demographic facts of life affected printing is important for any social history of the press.

In March 1726 Franklin finally returned to America and

began working for Keimer as foreman of his shop, meeting men who further influenced his career. One was Hugh Meredith, Keimer's pressman and Franklin's future partner. Another was Steven Potts, a bookbinder and later merchant, with whom Franklin would always remain close. Two more, David Harry, Keimer's apprentice, and George Webb, a compositor, would become Franklin's competitors. What is important to note is the basis of these future associations. All stemmed from sharing the same trade in the same place at the same time.

How Franklin viewed associations provides a means to assess their influence on him, his commitment to them, and their possible impact on the trade. The vocabulary Franklin employed is not unusual, but when placed in the context of behavior, describes a functional hierarchy of relationships. At the low end of the scale were "acquaintances," people Franklin knew in passing. Then there were "friends," people with whom Franklin shared closer ties. Either could constitute a "connection," a working, functioning association, the benefit of which could be "Interest and Influence," the bane of which, a "burden."^[12] At the high end of the scale was "Family," the closest possible tie. From this perspective and in these terms, the associations Franklin made can be seen in a fuller light.

Franklin's employment with Keimer lasted only a short time, for after a few months Keimer became increasingly

short and the two men finally fought. As Franklin recalled, "a Trifle snapt our Connection." [13] At that point Hugh Meredith proposed a partnership financed by Meredith's father. Franklin agreed and returned to work for Keimer while the equipment they needed was on order. During this time, Franklin and Keimer went to Burlington, New Jersey, to print an issue of currency. While there, as Franklin later recalled, he "made an Acquaintance with many principal people of the Province" and "aquired Friends" who "were afterwards of great Use to me, as I occasionally was to some of them." [14] Little by little, and especially from place to place, Franklin was acquiring the network of associations that would play so great a part in his career.

Naturally relationships were give and take, reflecting normal social interaction. Yet they profoundly affected Franklin's career in the trade. Late in 1728 Franklin and Meredith opened shop, the third in Philadelphia. Their very first piece of work was brought in by an "Acquaintance," George House, and their only extant activity of that year, part of a work Keimer printed, was secured through another friend, Joseph Breintnall. [15] In addition, "other Friends" brought in "little Jobs." [16] But almost immediately Franklin's business relationship with Meredith started to decline. Meredith began drinking and, as Franklin recalled, "my Friends lamented my Connection with him." [17] But

Franklin stuck it out, a measure, it would seem, of his commitment to that "Connection."

In 1729, after Franklin and Meredith assumed publication of Keimer's Pennsylvania Gazette, Franklin began to receive political patronage.[18] While Franklin attributed this to the quality of the Gazette and his skill as a printer, his associations were very much involved. As Franklin himself recalled, both the Gazette and his skill "strengthen'd the Hards of our Friends in the House, and they voted us Printers for the ensuing year." [19] Chief among Franklin's political "friends" was Andrew Hamilton, Speaker of the Pennsylvania House, who "interested himself for me strongly" in securing the position of official printer, "as he did in many others afterwards, continuing his Patronage till his Death." [20] The relationship, again, was give and take. Responding to attacks on Hamilton in Bradford's American Weekly Mercury in the Fall of 1733, Franklin anonymously wrote and published in his Gazette a spirited defense of Hamilton, a "Half-Hours Conversation with a Friend," something Franklin felt himself "bound in point of Friendship and Justice" to do.[21] In addition, Franklin secured for Hamilton's son £500, although exactly when and for what purpose is not known. But the relationship, the working connection, was there. And important as the equation of Friend=Interest=Patronage is, the way Franklin

came to meet Hamilton is equally so. In one sense, it was by chance for Hamilton was a friend of Thomas Denham's.[22] In another sense, it was due to the way information flowed.

Information in this pre-electronic age was essentially income elastic, that is to say, people with the most money got the most information fastest.[23] Money, moreover, flowed along the lines of trade, the Philadelphia-London route being a case in point. That Franklin followed this route exposed him to the flow of wealth-weighted information through Denham, the merchant, and Hamilton, the politician-lawyer. Franklin's earlier encounter with Governor William Burnet in New York, confirms the point. Returning from a visit to Boston in 1724, Franklin stopped at New York. While there he received an invitation from Burnet who had heard from the ship's captain that Franklin had some books. Burnet knew this about Franklin because information flowed along the lines of trade and wealth. Hence by virtue of his own physical movement and the way information traveled, Franklin was able to cross social barriers as if they hardly existed and to make associations that would prove advantageous to his career.

In 1730 Franklin dissolved his partnership with Meredith who was, by his own admission, ill-suited to the trade.[24] But before he did so, Franklin had to secure the money Meredith's father had advanced for the shop. Franklin

got it from "two true Friends," William Coleman and Robert Grace, both members of Franklin's Junto.[25] Again, Franklin's associations, his friends and connections, are in evidence at crucial points in his career.

If friends helped to secure business and allowed Franklin to print, doing the actual work was something else. Looking at Franklin's professional associations -- his apprentices, journeymen, and partners -- reveals another dimension of the press; training in the trade, and, more specifically, how the trade expanded. As any point in time, who was around to work for Franklin? In one sense anyone, for Franklin could have engaged totally untrained personnel. But to train new men completely would have been detrimental to Franklin's business; simply the time involved would have slowed him down. The question of growth, therefore, reduces to a question of the avenues by which people entered the trade.

Franklin's own experience suggests that there were two avenues into the trade. The first was family. He had been trained by his brother; Andrew Bradford had been trained by his father; and William Bradford had been apprenticed to his father-in-law in London. The Greens of Boston followed this path as well. To what extent this pattern prevailed in the trade as a whole and whether it changed over time is an important point. The second avenue was non-familial

training gained either in England, as in the case of Keimer or Benjamin's brother James, or in the colonies themselves, as in the case of Meredith. Yet we know the business was an expensive one to start, and the cost of traveling to England would have added even more.[26] And if training were to be acquired in the colonies, there were obviously limits to the number who could be trained at any given time, limits imposed by the number of printers around to do the training. Thus the very essence of growth and expansion of the trade was in part a matter of who was around at any given time, a matter of the size of the trade. And for any single individual in the trade, each new entrant became a potential association. Looking at Franklin's closest trade associations offers a glimpse at both the patterns of association and movement within the trade.

When Franklin and Meredith opened shop, they worked alone. After Meredith left, Franklin, needing help, took on Joseph Rose, the orphaned son of Aquila Rose, as an apprentice, and, as a journeyman, Thomas Whitmarsh, whom Franklin had met in London.[27] The fact that Whitmarsh was in Philadelphia in 1730, precisely when Franklin needed help, seems to have been a stroke of luck since there is no evidence Franklin ever issued an invitation to Whitmarsh. In September 1730 Franklin "took . . . to Wife" Deborah Read who functioned as part of the business "by attending the

Shop." [28] A year later Franklin entered into partnership with Whitmarsh, who was to establish a shop in Charleston. [29] By the terms of the agreement, which formed the basis for all of Franklin's later ones, the "Copartnership" was to last six years. Franklin was to supply Whitmarsh with all the necessary equipment for which Franklin would receive a third of the profits. Whitmarsh was to receive two-thirds of the profits and, at the conclusion of the six-year term, could buy the equipment if he liked. But Whitmarsh was bound to print only with Franklin's equipment and this effectively precluded Whitmarsh from either freelancing or expanding on his own. Whether Franklin's terms were standard for the trade is difficult to say, for his are the only extant records of partnerships. Important to note, however, are the restraints Franklin imposed. Only with his equipment could Whitmarsh expand. Thus growth, at least to some extent, was not an individual matter but was tied to associations.

After Whitmarsh's departure Franklin was one hand short. Either late in 1731 or early 1732 he hired Louis Timothy, a recent immigrant from Holland, as a journeyman, thus filling out his shop. [30] In 1733 Whitmarsh died, creating a vacancy in Charleston. By the terms of the Franklin-Whitmarsh agreement the equipment reverted to Franklin. At this juncture Franklin entered into

partnership with Timothy who was to assume the Charleston operation. The terms of this agreement mirrored the earlier accord with one exception; in the event of Timothy's death his son, Peter, could succeed him in the business.[31] Here again is the presence of family in the trade. For Timothy the provision regarding succession proved wise, for in 1738 he died. As his son was only thirteen, his widow Elizabeth continued the business.[32]

In the Fall of 1733 Franklin again needed help and it was James Parker, a runaway apprentice of William Bradford's, who now met Franklin's needs. Whatever Franklin's motives for taking Parker in, and one suspects that Franklin saw in Parker a memory of his former plight, the decision proved a good one for Parker would in later years become a trusted friend.[33] In 1740 Franklin took as an apprentice his late brother's son, James Franklin, Jr.[34] In 1741 Franklin set up Parker in New York.[35] To fill the gap created in the shop he took in Thomas Smith who, in 1743 or 1744, went to work for Parker in New York. In 1748 Franklin set up Smith in Antigua.[36] In 1743 he employed David Hall who, in 1748, became his Philadelphia partner and who ran the shop for eighteen years.[37]

The basic pattern of movement within Franklin's business was the progression from journeyman to partner. Whitmarsh, Timothy, Parker, Smith, and Hall all followed

this course. (What happened to Joseph Rose is unknown.) In one sense these men were Franklin's professional family, persons he trained and to whom he gave a start. And considered as a family, the pattern is not unlike that of a colonial father distributing his land to each maturing son with the youngest (Hall) succeeding to the father's lot.[38] Carrying the analogy a step further, a hint of patriarchalism characteristic of this pattern might be seen in the delay of full title to the firm Franklin imposed. An obvious difference exists, of course. These men were not Franklin's family in any biological sense, and Franklin's motive for the agreements was, to be sure, profit.

Still in addressing the question of the growth of the trade the pattern is of more than passing concern. For one thing, it hints at both the manner and limit of growth within the trade. The progression from journeyman to partner (the manner) took time (the limit). The pattern also suggests how closely the process, and with it growth, was tied to the number of people involved, for each partner (a printer) needed to be trained. Each of Franklin's partnerships was, moreover, a connection in a network of which Franklin was the central node. Spatially, this network was centered in Philadelphia and in 1748 reached northward to Newport, where James Franklin, Jr. and his mother Ann Franklin were in business, and New York, where

Parker had set up shop. To the south the network extended to Charleston where the Timothys still worked, then on to Antigua where Thomas Smith had begun to print. And this is only the most visible outline of Franklin's network of professional ties. To these must be added the less formal but no less important associations Franklin established through the years.

The maintenance of Franklin's network depended on several things. Above all it depended on Franklin's survival, for without him there would have been no central node, no connection among the parts. It was Franklin alone who knew all the network members and who formed the "connections" from the start. In some measure, too, success also depended on the network's utility, which logically would be manifested in the conduct of business. Moreover, the trade being communication, one might expect information to flow along network lines, and with Franklin's this seems to have been the case. Franklin's Poor Richard Almanac was sold by Thomas Fleet in Boston, Jonas Green in Annapolis, James Parker in New York, and "Sister" Ann Franklin in Newport.[39] All were Franklin associates. Fleet had been a "friend" of Franklin's brother James.[40] Green had worked for Franklin briefly before moving to Annapolis. Parker was a partner, and Ann Franklin was family. To what extent information, and specifically printed works, followed

network lines, and to what extent this was a general phenomenon of the trade, is a central question to be asked.

Franklin's career suggests many things about printing and publishing in the colonial years. Above all, it suggests that the trade was built upon associations and that these were necessary for success. Associations formed networks, and with them potential lines of communication and action. The foundations of networks varied. In Franklin's case the crucial elements were family, friends, and his own mobility. The cement of Franklin's network was "interest," the give and take of favors. In sum, Franklin's career suggests that the fundamental structure, operation, growth, and maintenance of the trade was tied to the associations of its members. Such a broad suggestion raises a host of conceptual and practical problems.

The idea of association is central. Yet conceptually, association is an inherently fuzzy term for it can imply both group and individual behavior, voluntary and involuntary action, potential and realized relationships. Yet essentially, associations are ordinary human things -- the knowing of other people -- and can be viewed as simply as that. Historians often take associations for granted, and to some extent they must. People naturally associate with one another, in groups and as individuals,

frequently and occasionally, by choice and as a matter of chance. To ask at every turn who knew whom and how cannot answer every question. In some instances, however, the matter of association can be vitally important. The history of ideas is a case in point for questions of intellectual influence are of intense concern. How Aristotle and Plato were introduced into Western thought has been determined in part by tracking their works through men in time. The Reformation thought of Luther and Calvin has been analyzed from the perspective of when each read or met different thinkers. Similarly, the diffusion of scientific thought from Europe to the colonies has been traced through people and their associations. The examples are almost endless.[41] The point is that such work naturally gives way to the idea of networks that allow and promote communication. While such an idea is hardly novel, it rarely assumes a position of importance.

To make the matter central would be to seek the associations first, to seek the network before tracking the flow of ideas through it.[42] Clearly it would be impossible to reconstruct every association of every printer, publisher, and bookseller in colonial America. But the most obvious personal and professional ties -- family, partners, apprentices, journeymen -- can be reconstructed for the entire trade just as they can be for Franklin. The

advantage of such an approach is twofold. First, it allows the basic patterns of association to be seen, and with this the basic structure of the trade. Second, seeking the structure of the trade, independent of its use, in the end allows a fuller assessment of personal choice and the influences on choice. The distribution of Poor Richard speaks directly to the point. The bulk buyers of Franklin's almanac were all members of his network. Poor Richard was not the only almanac around. That James Parker, Ann Timothy, Ann Franklin, Jonas Green, and Thomas Fleet all exercised a personal choice in buying Poor Richard seems clear beyond a doubt. But just as clearly, they made that choice within the social context of the trade network in which they were enmeshed. The conjunction of choice and network seem more than coincidental, and hints at the fundamental nature of the diffusion of the printed word.

Existing scholarship offers little aid in assessing the structure of the trade for it avoids precisely what Franklin's career suggests was most important -- associations and the networks they formed. Underlying this is the absence of any collective treatment of printing and publishing which itself stems from a variety of factors. On the one hand, historians of printing and publishing have more often than not lacked an overall interpretive framework.[43] Traditionally, the field has

been the realm of bibliographers, antiquarians, and historians of journalism who have focused on the individual printer, press, newspaper, or place, and whose work reflects particular concerns about the inception and development of printing and publishing at the local level. Works that deal comprehensively with printing and publishing in the period are generally descriptive and biographical as well, for the most part compilations.[44] On the other hand, when colonial historians have entered the field, by and large it has been to study the political aspects of the press, particularly newspapers, addressing questions about the freedom of the press and the role of the press in politics, especially during the era of the American Revolution.[45]

Exceptions exist, but very few. Yet those works that depart from the traditional concerns of publishing history or the political focus of colonialists have a common feature in that they treat the printer or publisher as an entrepreneur working under a variety of social, economic, and political conditions.[46] More often than not, however, these conditions operated on a local scale and leave unanswered serious questions about the overall structure of the trade itself. Arguing, for example, that religious rather than government printing was the key to success in Boston says nothing about what characterized a successful business in Philadelphia, Williamsburg, or New York.[47] Was

the Boston trade different, not simply in what it printed but in its structure, from the New York trade or the trade as a whole? Or were there more general factors governing success and failure anywhere? Were they few or many? Did they change over time? From one location to another? Looking at the entire trade can highlight both differences and similarities among and within groups, yet this depends upon knowing who did what, where, for how long, and under what conditions.

There are, too, both practical and conceptual problems which have worked against large scale analysis of the colonial press, ones which often overlap. On the practical side there is, again, the enormous size of the press and its activity. The conceptual hurdles are more complex. Printing and publishing are culturally sensitive phenomena. To treat books and newspapers as merely products divorced from their content seems somehow to violate the essence of the press itself. Moreover, to adopt the strategy of viewing printers and publishers as simply producers detached from their cultural milieu seems to ignore the intricacies of the process by which ideas were guided into print.[48] Both the magnitude of the enterprise and the sensitivity of its cultural context pose real and not inconsequential problems for historians of the press. Yet underlying any phenomenon, culturally sensitive or not, is a structure.

With the press, that structure was a matter of associations among its members.

Underlying all else is a single question which goes to the root of historical analysis itself. Does the literature of early America, the product of the press, have a bias as a result of the structure of the trade? Does it reflect in any systematic way the social behavior of its members? Did the nature of the trade and its patterns of growth render what was printed a product not only of authors but also of the business networks of the press? Is, for example, the fact that there were no South Carolina almanacs, written by South Carolinians, published in Charleston in the 1730's due solely to the fact that the printer or a publisher could find no compiler to hire? Or might it also have been due to the fact that the printers in Charleston in the 1730s -- the Timothys -- were in Franklin's network and had Poor Richard readily available to them? Clearly such a question can have no unequivocal answer. Yet behavior can be a telling guide. The history of the early American press suggests that printed works did indeed follow network lines, thus rendering both the size and substance of the extant literature of any time and place in part a function of the structure of the trade and not exclusively a product of the intellectual milieu. This may well provide grounds for assessing in different terms a body of literature on which

historians universally rely.

The order and substance of the chapters to follow deserve note for they are dictated as much by the absence of their particular concerns in the existing scholarship as by those of this study. Special problems of evidence arise when treating the entirety of the colonial press. Fundamentally, the problems are those of estimating the size of the product of the press, and of establishing the size and composition of its membership. Both the scope and the methods employed require a separate discussion. To some extent the particular solutions to these two problems are technical and have been relegated to an Appendix on "Sources and Methods." Chapter 2 presents the broad patterns of production and involvement in the trade and an analysis of the relationship between the two. Chapters 3 and 4 examine the demographic foundations of the trade and the radically different demographic patterns that existed -- patterns which profoundly affected the amount of literature produced.

These early chapters provide the necessary foundation for examining the forms and patterns of association which made up the networks of the trade, which is treated in Chapter 5. Chapter 6 examines how these networks of association functioned as the underlying superstructure for the diffusion of the printed word. Here the extant

literature of the colonial period is tracked across both time and space along network lines. This final chapter brings together the conclusions of the preceding chapters to address the basic issue of this study: whether the literature of early America had a social bias, one resulting from the structure of the trade and the behavior of its members.

1. James Franklin (1697-1735). The details of the following sketch of Franklin have been drawn largely from Leonard I. Labaree, et al., eds., The Autobiography of Benjamin Franklin (New Haven, Conn., 1964), hereafter cited as Franklin, Autobiography), and Leonard I. Labaree, William B. Willcox, et al., eds., The Papers of Benjamin Franklin (New Haven, Conn., 1959-), hereafter cited as Franklin Papers. Recent Franklin scholars have paid little attention to Franklin's career in printing. The most notable exception is C. William Miller, whose principal work, Benjamin Franklin's Philadelphia Printing, 1728-1766: A Descriptive Bibliography, American Philosophical Society, Memoirs, CII (Philadelphia, 1974), represents a work of far broader scope than its title implies. See also, Miller, "Benjamin Franklin's Way to Wealth," Papers of the Bibliographic Society of America, LXIII (1969), 231-246.
2. Bartholomew Green (1667-1732), Timothy Green (1679-1757), and Samuel Kneeland (1697-1769).
3. Franklin was able to declare that he was leaving his brother's shop because James had released him from his formal indenture in 1722 during a controversy with the Massachusetts authorities over James' New England Courant, a ploy which allowed the paper to be printed under Benjamin's name. Franklin, Autobiography, 69-70.
4. William Bradford (1663-1752). Alexander J. Wall, Jr., "William Bradford, Colonial Printer -- A Tercentenary Review," Proceedings of the American Antiquarian Society, n.s., LXXIII (1963), 361-384.
5. Franklin, Autobiography, 71. Andrew Bradford (1686-1742) is well treated by Anna Janney DeArmond, Andrew Bradford, Colonial Journalist (Newark, N.J., 1949).
6. Samuel Keimer (c.1688-1742). Stephen Blocre, "Samuel Keimer: A Footnote to the Life of Franklin," Pennsylvania Magazine of History and Biography, XLV (1930), 255-287.
7. Franklin, Autobiography, 78.
8. Ibid., 67, 70.
9. William Keith (1680-1749) was governor of Pennsylvania from 1717-1726. Robert Holmes (d. before 1743) had married Franklin's sister Mary (1694-1731), Franklin

Papers, I, lix.

10. Franklin, Autobiography, 80.
11. Ibid., 105.
12. Franklin's experience with James Ralph (d. 1762) best captures the "burden" of a friendship. ibid, 89-99.
13. Ibid., 111.
14. Ibid., 112.
15. Ibid., 115-116, 118.
16. Ibid., 119.
17. Ibid., 120.
18. Franklin and Meredith assumed publication of the Pennsylvania Gazette on Oct. 2, 1729. Franklin played a role in Keimer's downfall through the "Eusy Body" letters in Bradford's Pennsylvania Jourral, which ridiculed Keimer's paper. See, Franklin Papers, I, 113-139. Franklin's accomplice in the effort was Joseph Breintnall (d. 1746), who had helped Franklin secure Quaker printing the year before.
19. Franklin, Autobiography, 121.
20. Ibid. Hamilton (c.1676-1741) also helped Franklin secure a job of printing an issue of currency in 1731, worth £100 to Franklin, and which Franklin directly attributed to Hamilton's influence: "I soon after obtain'd thro' my Friend Hamilton" Franklin, Autobiography, 124-125.
21. Franklin Papers, II, 333-338.
22. Franklin, Autobiography, 94-95.
23. Allan R. Fred, Urban Growth and the Circulation of Information: The United States System of Cities, 1790-1840 (Cambridge, Mass., 1973).
24. Franklin, Autobiography, 122; Franklin Papers, I, 175.
25. William Cclman (1704-1757). Robert Grace (1709-1766). Grace refused repayment of the loan. Franklin, Autobiography, 116-118, 122.

26. The cost of establishing a printing operation was high. Franklin estimated the cost at £100 in 1753. Franklin Papers, V, 81-83. This was the same estimate Franklin gave Keith in 1724. Franklin, Autobiography, 87.
27. Franklin, Autobiography, 125.
28. Deborah Read (1708-1774) was never legally married to Franklin, her first husband, John Rogers, having deserted her. Franklin, Autobiography, 129 and n.
29. Thomas Whitmarsh (d. 1733). The text of the agreement is in Franklin Papers, II, 205-208.
30. Louis Timothy (d. 1738) also served as editor of Franklin's short-lived German newspaper, Philadelphische Zeitung, and as librarian of the Library Company. Franklin Papers I, 250-252. Publication of the Philadelphische Zeitung lasted only 1 month (2 issues, May 6 and June 24, 1732). Clarence S. Brigham, History and Bibliography of America Newspapers, 1690-1820, 2 vols. ([1947] Worcester, Mass., 1974), II, 963.
31. Franklin Papers, II, 239-242.
32. Henning Cchen, The South Carolina Gazette (Columbia, S.C., 1953), 238-241. Franklin regarded Elizabeth Timothy highly for her business sense. Franklin, Autobiography, 166.
33. James Parker (1714-1770). For Parker's life and career, see Beverly McAnear, "James Parker versus William Weyman," Proceedings of the New Jersey Historical Society, LIX (1941), 1-23; and McAnear, "James Parker versus New York Province," New York History, XXII (1941), rpt., np. See also, Franklin Papers, II-XVI, passim.
34. James Franklin, Jr. (c.1724-1762). Franklin Papers, II, 261-63; Franklin had reconciled with his brother James, Sr. in 1733. Franklin, Autobiography, 169-170.
35. Franklin Papers, II, 341-46.
36. Ibid., III, 321-322.
37. Ibid., II, 263-267.
38. This pattern can be seen in a number of New England local studies. See, especially, Philip J. Greven, Jr.,

Four Generations: Population, Land, and Family in Colonial Andover, Massachusetts (Ithaca, N.Y., 1970).

39. Franklin recorded sending Thomas Fleet (1685-1758) some 1,950 almanacs from 1740-1747. Ann Franklin (1695-1763) received 4,050 in the same period. Jonas Green (1712-1767) received 7,250 between 1740 and 1747, and Parker was sent 4,300 almanacs between 1742 and 1747. George Simpson Eddy, Account Books Kept by Benjamin Franklin: Ledger "D", 1739-1747 (New York, 1929), 54-56, 63-65, 91-94. Not every entry that indicates a sale of almanacs explicitly identifies the item as being Poor Richard, but they are all marked as being "Almanacs," and Franklin printed only one full almanac from 1733 to 1758 -- Poor Richard. He did print a "Pocket" Almanac and sales of these are included in the quantities listed above. David Hall's accounts indicate that between 1752 and 1765, he printed 141,257 copies of Poor Richard Improved. Partners also received a reduced rate. C. William Miller, "Franklin's Poor Richard Almanacs: Their Printing and Publication," Studies in Bibliography XIV (1961), 98, 111, 113. Franklin had other business connections too. See, for example, Franklin Papers, II, 316-316, for a summary of accounts with William Bradford (1722-1791); ibid., II, 351-352, for a similar summary of Franklin's "Receipt Book, 1742-64"; Jonas Green to Franklin, July 25, 1747, ibid., III, 153-154; and George Simpson Eddy, Account Books Kept by Benjamin Franklin: Ledger, 1728-1739, Journal, 1730-1737 (New York, 1928).
40. Franklin knew Fleet from his Boston days, and James Franklin, Sr.'s publication of the New England Courant. Franklin, Autobiography, 67 and n.
41. Fernand van Steenberghe, Aristotle in the West: The Origins of Latin Aristotelianism, Leonard Johnston, trans. (New York, 19??), esp., 8-22; Eugenio Garin, Italian Humanism: Philosophy and Civic Life in the Renaissance, Peter Munz, trans. (New York, 1965), esp., 81-84; Francois Wendell, Calvin: The Origins and Development of His Religious Thought (New York, 1963); and Norman S. Fiering, "The Transatlantic Republic of Letters: A Note on the Circulation of Learned Periodicals to Early Eighteenth-Century America," William and Mary Quarterly 3rd Ser., XXXIII (1976), 642-659.
42. Formal network analysis has not been employed by historians. For a brief discussion of the approach and an example of its applicability to historical research

- see, Darrett B. Rutman, "Community Study," Historical Methods, XIII (1980), 29-41.
43. See G. Thomas Tanselle, "The Historiography of American Literary Publishing," Studies in Bibliography, XVIII (1965), 3-39.
44. See, for example, Isaiah Thomas, The History of Printing in America, 2nd edn., Marcus A. McCrison, ed. (1874; New York, 1970); John Tebbel, A History of Book Publishing in the United States, 2 vols. to date (New York, 1972), 1:1-201; Brigham, History and Bibliography of American Newspapers; Douglas C. McMurtrie, A History of Printing in the United States (New York, 1936); and Lawrence C. Wirth, The Colonial Printer, 2nd rev. edn (1938; Charlottesville, 1964).
45. See, for example, Arthur M. Schlesinger, Prelude to Independence: The Newspaper War on Britain, 1764-1776 (New York, 1957); Philip Davidson, Propaganda and the American Revolution, 1763-1783 (Chapel Hill, 1941); and Richard L. Merritt, Symbols of American Community, 1735-1775 (New Haven, Conn., 1966); Gary B. Nash, "The Transformation of Urban Politics, 1700-1765," Journal of American History, IX (1973), 605-32.
46. The most notable examples of this work are Rollo G. Silver, "Aprons Instead of Uniforms: The Practice of Printing, 1776-1787," Proceedings of the American Antiquarian Society, LXXXVII (1977), 111-94; Mary Ann Yodelis, "Who Paid the Piper? Publishing Economics in Boston, 1763-1775," Journalism Monographs, No. 38 (1975); Stephen Botein, "'Meer Mechanics' and an Open Press: The Business and Political Strategies of Colonial American Printers," Perspectives in American History, IX (1975), 127-225; J. A. Leo Lemay, Men of Letters in Colonial Maryland (Knoxville, Tenn., 1972), esp., 111-25, 193-212; and Bernard Bailyn and John B. Hench, eds., The Press and the American Revolution (Worcester, 1980).
47. Yodelis, "Who Paid the Piper." Cf. Peter J. Parker, "The Philadelphia Printer: A Study of an Eighteenth-Century Businessman," Business History Review, XL (1966), 24-46.
48. Work on European publishing and the cultural context of printing is extremely pertinent. See especially, Robert Darnton, The Business of the Enlightenment: A Publishing History of the Encyclopedie, 1775-1800 (Cambridge, Mass.;, 1979); Natalie Zemon Davis,

"Printing and the People," in Davis, Society and Culture in Early Modern France (Stanford, 1975), 189-226; Elizabeth L. Eisenstein, The Printing Press as an Agent of Social Change, 2 vols. (Cambridge, 1979). For an application of some of these concerns in colonial America, see David D. Hall, "The World of Print and Collective Mentality in Seventeenth-Century New England," in John Higham and Paul K. Conkin, eds., New Directions in American Intellectual History (Baltimore, 1979), 166-80.

CHAPTER TWO

DIMENSICNS

Assaying the dimensions of the early American press requires one to assume a particular cast of mind, for while we are accustomed to associating the press with ideas expressed in print, the broad contours of growth appear removed from the influences of ideas. The press grew like the population it served. So too did the products of the press, the books and newspapers of the period, increase in proportion to the population which bought them. And the basic relationship between product and producers suggests that how much was printed depended more than anything else on how many people, and in particular, how many printers, were active in the trade.

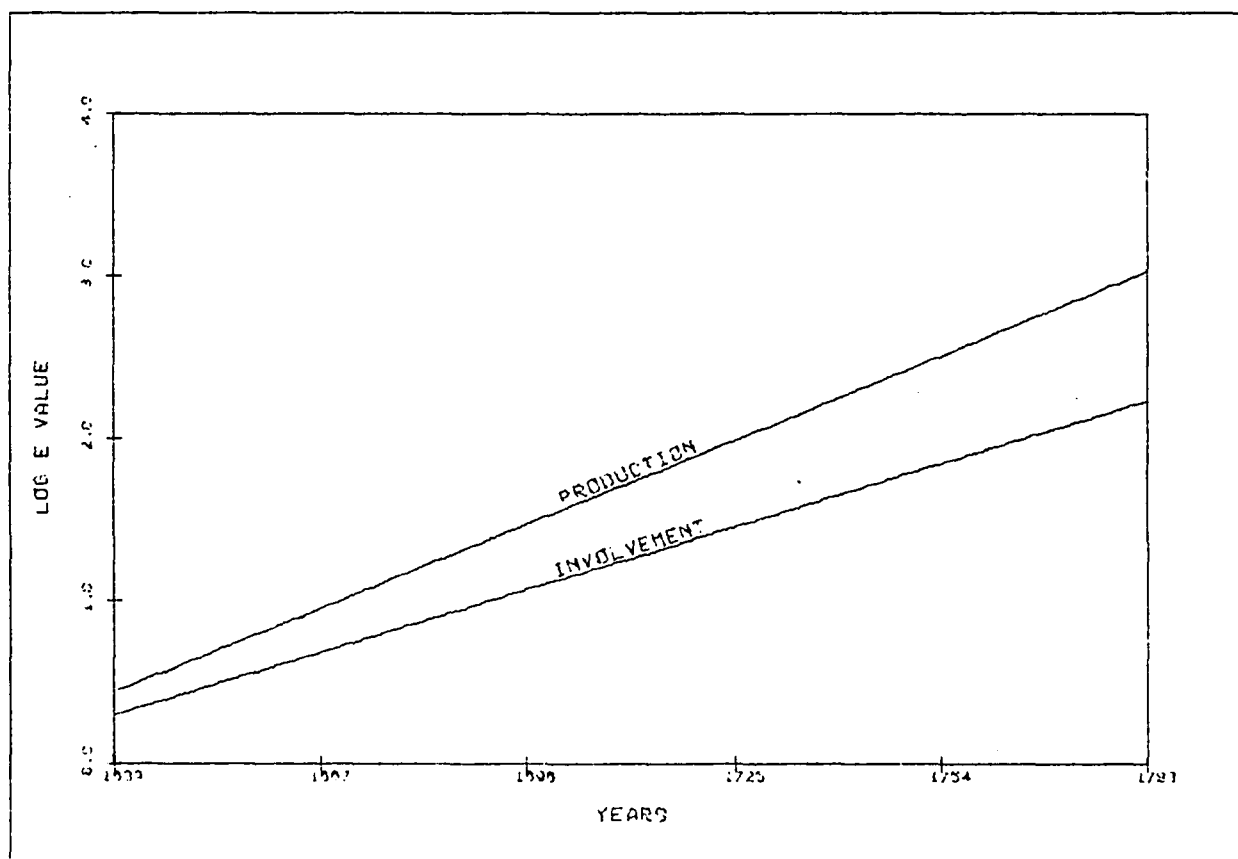
The fundamental pattern of development of the early American press was rapid growth. From 1639 to 1783 the number of people involved in printing and publishing increased at an annual rate of 3.2 percent, almost equaling the 3.3 percent rate of population growth in the colonies.[1] Production increased at a even greater pace. From 1639 to 1783 the number of imprints and newspapers issuing from colonial presses averaged a gain of nearly 10

percent a year.[2] The basic course of growth can be depicted as a trend, a single mathematical representation of events, and Figure 2.1 displays the growth trends in both production and involvement for the 1639-1783 period, the facts of which are presented in Table 2.1.[3]

Figure 2.1

Early American Press:

Growth Trends in Production and Involvement, 1639-1783



Notes: Trends are least squares estimates of logarithmic (logE) functions. For equations see note 3. For sources see Appendix 1.

Table 2.1

Early American Press:

Number, Percentage Change, and Annual Rate of Growth
for Imprints, Newspapers, and Printers, Sponsors, and
Booksellers, in Five Year Periods, 1639-1783

Period	No. Imp	No. New	No. Tot	% Chg Tot	No. FSB	% Chg PSB	Rate PSB	No. PTR	% Chg PTR	Rate PTR
1639-1643	13		13		2			1		
1644-1648	12		12	-7.7	3	50.0	8.1	1	.0	.0
1649-1653	13		13	8.3	4	33.3	5.8	2	100.0	13.9
1654-1658	20		20	53.8	2	-50.0	-13.9	1	-50.0	-13.9
1659-1663	29		29	45.0	3	50.0	8.1	2	100.0	13.9
1664-1668	52		52	79.3	4	33.3	5.8	2	.0	.0
1669-1673	50		50	-3.8	8	100.0	13.9	2	.0	.0
1674-1678	91		91	82.0	9	12.5	2.4	3	50.0	8.1
1679-1683	97		97	6.6	17	88.9	12.7	4	33.3	5.8
1684-1688	112		112	15.5	23	35.3	6.0	7	75.0	11.2
1689-1693	265	1	266	137.5	19	-17.4	-3.8	8	14.3	2.7
1694-1698	177		177	-33.5	15	-21.1	-4.7	6	-25.0	-5.8
1699-1703	332		332	87.6	21	40.0	6.7	6	.0	.0
1704-1708	279	1	280	-15.7	22	4.8	.9	10	66.7	10.2
1709-1713	356	1	357	27.5	23	4.5	.9	10	.0	.0
1714-1718	424	1	425	19.0	29	26.1	4.6	9	-10.0	-2.1
1719-1723	523	4	527	24.0	44	51.7	8.3	11	22.2	4.0
1724-1728	646	7	653	23.9	52	18.2	3.3	16	45.5	7.5
1729-1733	654	10	664	1.7	56	7.7	1.5	21	31.3	5.4
1734-1738	602	13	615	-7.4	53	-5.4	-1.1	21	.0	.0
1739-1743	1095	13	1108	80.2	71	34.0	5.8	28	33.3	5.8
1744-1748	1038	17	1055	-4.8	70	-1.4	-0.3	35	25.0	4.5
1749-1753	977	21	998	-5.4	71	1.4	.3	37	5.7	1.1
1754-1758	1394	16	1410	41.3	88	23.9	4.3	44	18.9	3.5
1759-1763	1556	22	1578	11.9	102	15.9	3.0	60	36.4	6.2
1764-1768	1891	32	1923	21.9	158	54.9	8.8	79	31.7	5.5
1769-1773	2398	35	2433	26.5	164	3.8	.7	97	22.8	4.1
1774-1778	3940	56	3996	64.2	212	29.3	5.1	131	35.1	6.0
1779-1783	2869	55	2924	-26.8	201	-5.2	-1.1	131	.0	.0
1639-1783							3.2			3.7

Notes: Imp = imprints, PSB = printers, sponsors, and booksellers, New = newspapers (counting all issues in a single year as one newspaper), Tot = imprints plus newspapers, % Chg = percent change, Rate = Annual Rate of Change, PTR = printers. Imprint counts reflect weighting described in Appendix 1. For sources see Appendix 1.

The similarity between trends is clear. Each increased steadily throughout the colonial years very much in step with the other. Indeed, fully 73 percent of the variation of the trend in production is explained by the trend in the number of people involved.[4] Statistically, this is an exceptionally strong and telling correlation. It immediately suggests that the indices of production and involvement are measuring essentially the same thing -- the trade itself -- and that the principal elements of growth lie in involvement or activity in the trade.

Of course, asserting that production and involvement are basically measuring the same thing tends to ignore the role of demand in the classic economic formulation of supply and demand. Theoretically, when demand goes up more people will respond to produce more; when it goes down, fewer people will respond and less will be produced, thus creating the equilibrium between supply and demand. Such a formulation suggests that demand should dictate the course of growth. Yet in the present case demand cannot be directly gauged. All that can be seen are its presumed effects -- more imprints and more people in the trade. Yet the logic of demand, and hence its basic course of growth, can be deduced.

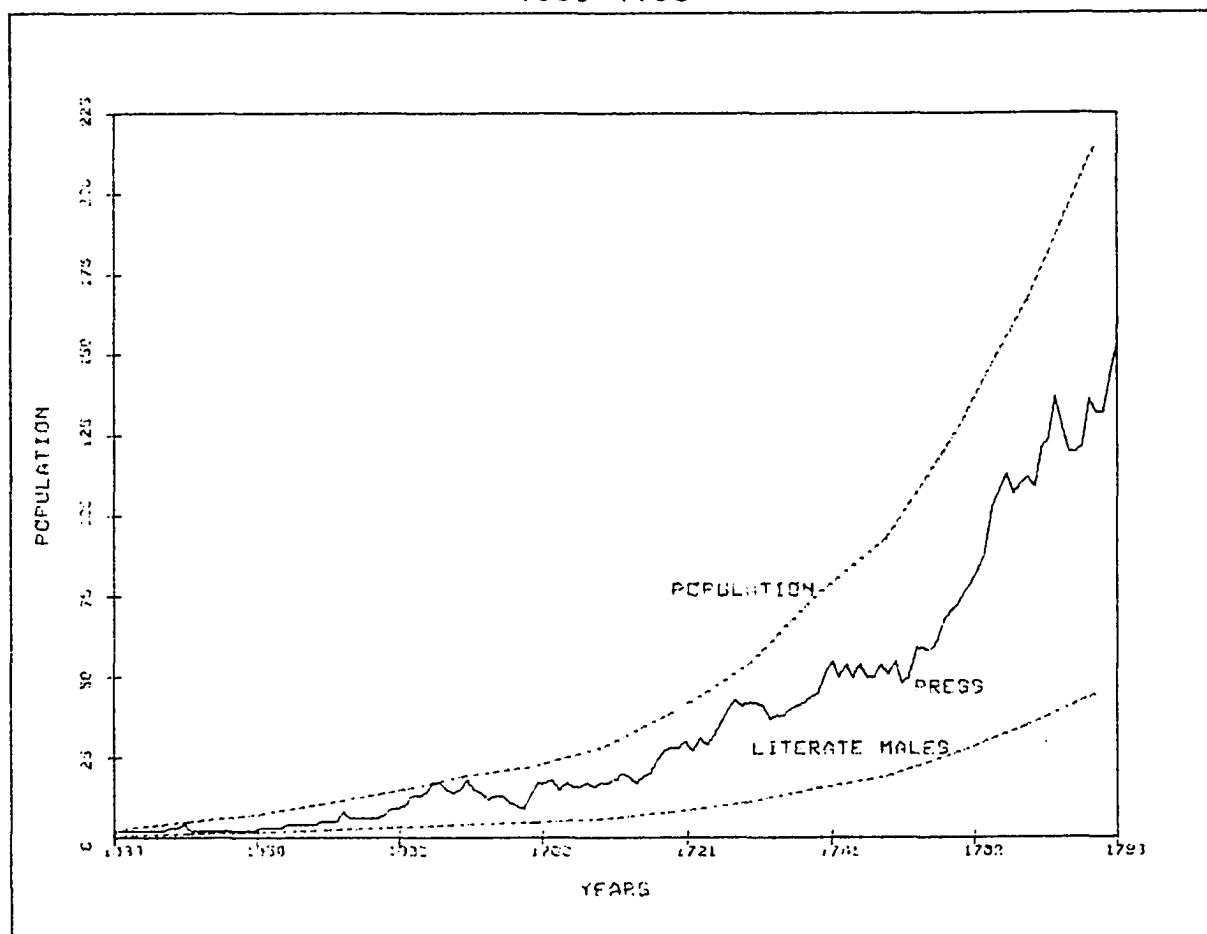
The commodity being supplied was the printed word, which required literate consumers. Variations in the number

of literate consumers would logically affect demand. Only in the broadest terms is the extent of colonial literacy known, the general trend being upward, with male literacy reaching perhaps 85 to 90 percent in New England and a somewhat lower percentage in the Middle and Southern colonies by the American Revolution. Yet in all areas, male literacy was probably between 60 to 70 percent at the turn of the eighteenth century.[5] Thus literacy increased at a much slower rate than the population, but the number of people who were literate, and capable of consuming the product of the press, increased dramatically from, say 1680 to 1780, in no small measure because there were so many more people. Consequently, if literacy affected demand it did so in proportion to general population growth. The commodity, moreover, is information, which in this pre-electronic age was income elastic, that is, those with the most money had the greatest impact on demand.[6] What this means is that in colonial America, which was characterized by a relatively unequal distribution of wealth, the demand for information (in this case printed information) would depend most on population, for population growth would always increase the number of people with more money. Since population always grew, demand was always on the rise.

On the one hand, to say that the growth of the trade was a function of population growth does not say much at

all. On the other hand it says a great deal for it implicitly defines the "ideal" course of growth as one which mirrored population growth. And empirically the ideal approximates the real. Figure 2.2 displays the number of persons in the trade from 1639 to 1783 together with the white colonial population and gross estimates of the number of literate adult males from 1640 to 1780.[7] The basic pattern is clear. The number of people involved in printing and publishing increased in almost the exact same fashion as the total population. While the number of people active in the trade is consistently below the proportional level of the general population, that number just as consistently mirrors the overall pattern of population growth. Indeed, the similarity is on the order of 90 percent.[8]

Figure 2.2
 White Colonial vs Early American Press Population,
 1639-1783



Notes: Colonial population in tens of thousands, excluding Kentucky and Tennessee. Sources: Historical Statistics (1976), Series Z:1-19; prosopography described in Appendix 1; and sources given in note 7.

That the press and the population should have grown in similar ways may not be in itself surprising. Tradesmen were, after all, members of the larger society. But it does carry important implications for how the press is viewed. Take the matter of growth. Traditionally historians of

printing and publishing have seen the growth of the press in absolute terms. Large increases in production or involvement were considered just that, large increases. In the seventeenth century the trade was small and production limited. In the eighteenth century the trade grew and production increased, implicitly because society grew but more explicitly because attitudes and political behavior changed, because governments lifted restraints, and because events precipitated production.[9] The logical conclusion of the process came with the Revolution when, after the dislocation of printing from occupied towns and in the unfettered political atmosphere that came with independence, the press, now totally free and open, grew by leaps and bounds. Yet the growth of the press before, during, and even after the war can be at least in part explained by the normal processes of population growth itself.

Looking at the curves of press and population growth one would not immediately suspect that the eighteenth century was a century of international war, that a continental economic slump occurred in the second quarter of the eighteenth century, and that a fundamental transformation in political behavior took place. The press is generally viewed as having some special relationship with politics but politics is not reflected in its growth as

depicted here. This is not to say that politics or economics had no effect, only that the growth of the press reflected basic demographic patterns to a much greater degree than has been recognized before.

The impact of events deserves special mention for to argue that the growth of the press might follow normally on the growth of the population seems on the surface to ignore the particular, and especially the major events of the colonial period -- the Glorious Revolution, the Great Awakening, the Stamp Act crisis, and the Revolutionary war. But this is really not the case. Without doubt, events fueled production and drew some people into the trade. But without the phenomenon of a press-in-being -- for the press did not begin from scratch with every new event -- nothing would have been produced. Those who wanted to take advantage of the press needed one to do so. Thus how much was produced was necessarily limited (and conversely minimally dictated) by the size of the press at the time. If an event such as the Glorious Revolution coincided with a high level of production in New England, a low level in New York, and nothing whatsoever in Maryland, we cannot assume that the event was less intense in Maryland or New York than it was in New England. Rather, we can more reasonably assume that the crucial difference was the size of the press -- and particularly the number of printers -- in the different

locations at the time of the event.

There were clearly peaks in production, times, such as the American Revolution, when the number of imprints produced stand out. While these periods of high production are reflected in the trend in that they contribute to its level, when compared to the trend itself they are really deviations -- fluctuations above the trend. Periods of peak production, in other words, are a combination of ordinary growth and particular events which assume, in quantitative terms, the deviations above the trend. And peaks can only be considered extraordinary when deviations are statistically far beyond what might have been expected from random deviation from the steady upward trend. Put another way, it is only when deviations are statistically abnormal that the level of production (the number of imprints produced) can be construed as more dependent on the event than the number of people in the trade. And for the entire colonial period from 1639 to 1783, production departed significantly from the trend in only seven years: in 1766, 1767, 1772, and 1782 when it fell below, and from 1774 to 1776 when it rose above any normal deviation.[10] Thus it would seem that involvement in the trade -- its structure, dimensions, and the patterns of its growth -- is the key to the early American press, not the press of events.

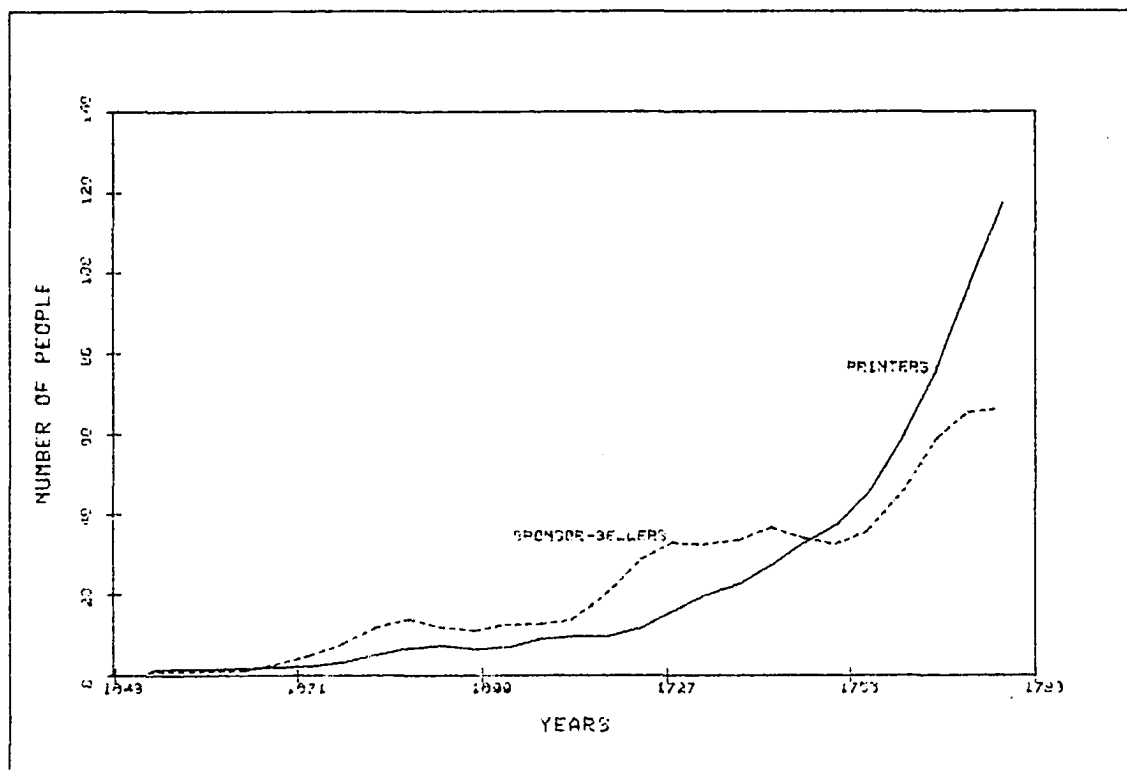
The rapid growth of the trade makes aggregate description of involvement difficult, yet some composite view is needed. From 1639 to 1783, 639 persons were active in printing and publishing. Of these, the names of 39 (6.1 percent) never appeared on an imprint. Fully 164 (25.7 percent) can be termed one-time participants, that is, persons whose involvement was confined to a single imprint in a single year and for whom there is no other evidence of trade activity. The remaining 475 (74.3 percent) can be termed professionals, persons whose involvement lasted more than one year or whose name appeared on more than one imprint.

Dividing the press into basic function groups allows the dimensions of involvement to be seen more clearly. Of the 639 persons whose activity can be classified, 265 (41.5 percent) were printers, 374 (58.5 percent) sponsors and sellers. ("Sponsor" corresponds roughly with "publisher" but, as the Appendix explains, is used because of the essential looseness of colonial practices.) Of note is the relatively high proportion of printers to sponsors and sellers combined, for, as Figure 2.3 displays, the ratio changed dramatically in the period.

Figure 2.3

Early American Press:

Number of Printers vs Number of Spncscr-Sellers, 1639-1783



Notes: Printers, solid line; Sponsors and Sellers, dashed line. Lines are 3 point weighted running averages of five year totals computed as $X = (X_{t-1} * .25) + (X_t * .5) + (X_{t+1} * .25)$ where X is the value at time t. Source: Prcsopography described in Appendix 1.

From the 1670s to the early 1740s sponsors and sellers outnumbered printers. But beginning in the mid-1740s the balance shifted and by the end of the period the number of printers exceeded the number of sponsors and sellers combined by more than two to one. What this shift signals is difficult to say. On the cre hand, it suggests an increasing

specialization of function among sponsors and sellers. On the other hand, it suggests a tendency among printers to assume the functions of seller and, to a lesser extent, sponsor, hence an increasing monopolization of the trade by printers. If specialization is indeed involved, it would reflect the tendency in the larger economy towards increased economic specialization.

Professional printers, sponsors, and sellers are of the greatest concern for they were responsible for producing the majority of the newspapers and imprints of the period. Disaggregating this group of 475 persons by function yields 265 (55.8 percent) printers and 210 (44.2 percent) sponsors and sellers. The overriding characteristics of professional involvement were stability and longevity in the trade.

Stability is perhaps best measured in terms of geographic movement. Of the 265 printers, 172 (64.9 percent) were active at only one location during their careers in the trade. Another 50 (18.9 percent) were active at two, and 43 (16.2) printed at three or more places. While these figures exclude apprenticeship and journeyman activity, and include activity after 1783 -- that is, activity of tradesmen who began their careers prior to 1783 but who were active at different places after 1783 -- limiting the count to include only activity before 1783 does not change the picture much at all. Fully 188 individuals (70.9 percent) printed in only

one place, 42 (15.8 percent) two, and 35 (13.2 percent) at three or more. Sponsors and sellers moved even less frequently than printers. Of the 210 professional sponsors and sellers active before 1783, 187 (89.0 percent) confined their activity to one locale. Only 17 (8.1 percent) were active at two places, and 6 (2.9 percent) did business in three or more. Again, limiting the count to activity within the 1639-1783 period, does not change the pattern. Of the 210 sponsors and sellers, 203 (96.7 percent) were active at only one location.

Length of involvement in the trade also reflects a basic stability, although more so for printers than for sponsors and sellers. As with locations, duration of activity can be measured beyond 1783. For printers, the average length of activity was nearly 20 years. For sponsors and sellers, the duration of all activity was shorter, averaging 13 years.[12] Quite clearly, printers, once in the trade, tended to stay there longer than sponsors or sellers.

Production, while easily measured, must be cautiously interpreted. Because the trade expanded rapidly, in the geometric fashion of the population, more people were involved toward the end of the period. Yet imprints and newspapers have been dealt with only through 1783. Thus average production figures are low for the majority of tradesmen. There is, however, a discernable pattern within

each function group. Spncors and sellers tended to be involved with fewer imprints than printers. Fully 139 (76.8 percent) of the 181 professional spncors and sellers with imprint designations were explicitly involved in the production of fewer than 10 imprints. Another 37 (20.4 percent) were involved in producing between 10 and 99, and only 5 (2.8 percent) were involved with more than 100 imprints.

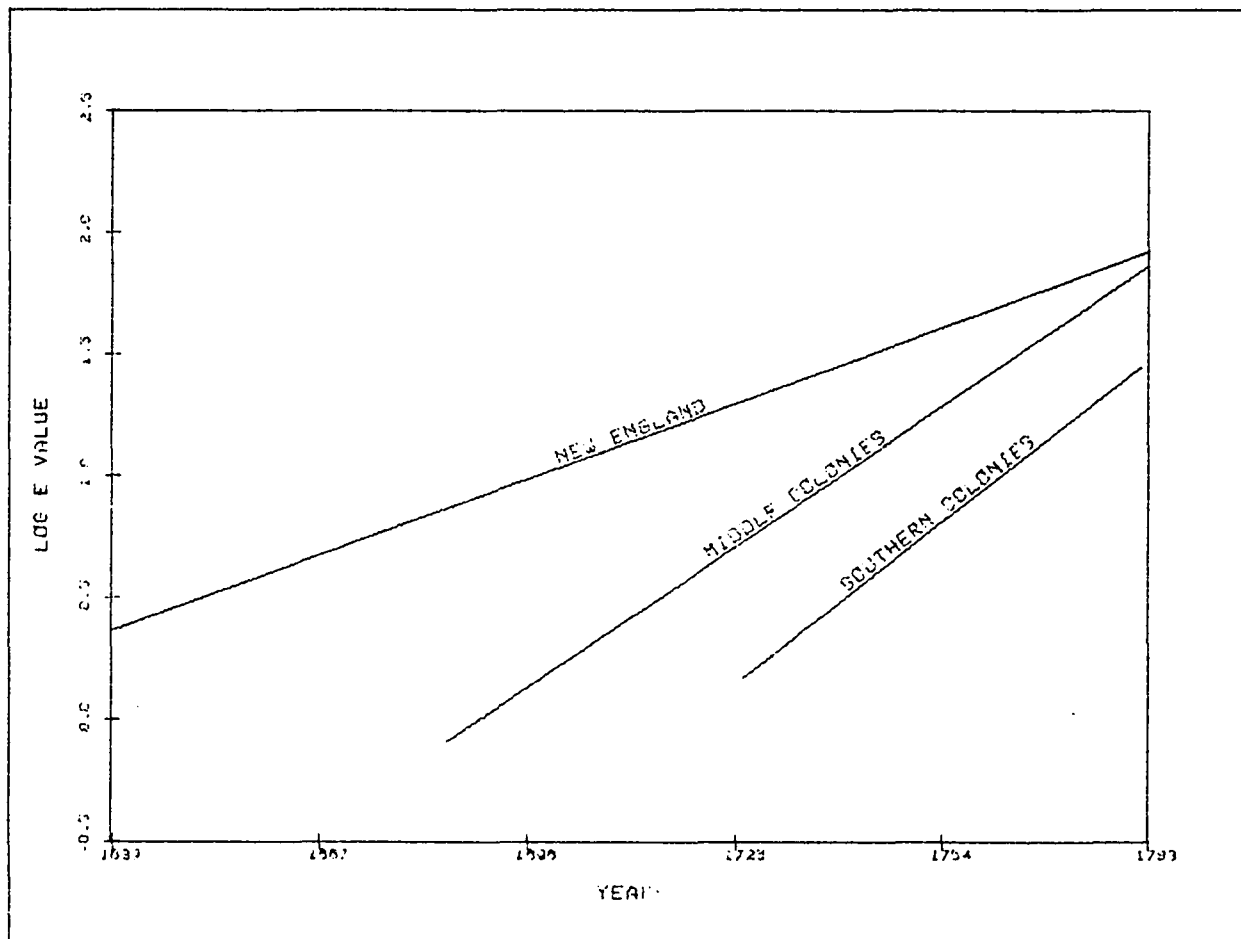
Production figures for printers, again, must be interpreted cauticusly, for their numbers increased dramatically and their activity often extended beyond 1783. On the basis of explicit imprint designations, 87 (33.5 percent) printed between 1 and 9 imprints. One-hundred and one (38.8 percent) printed between 10 and 99, but fully 72 (27.7 percent) were involved with the production of more than 100 imprints -- nearly 10 times the number of spncors and sellers with this number of imprints. Greater production obviously went hand-in-hand with longevity in the trade, for the longer a printer was in business the more imprints he could produce. Nonetheless, production figures suggest that printers tended to produce more than spncors and sellers not only because they stayed in the trade longer, but also because their involvement was neither as limited nor as sporadic as that of spncors and sellers.[13] Simply put, spncors and sellers dabbled in the trade, printers did not.

On a continental scale the general patterns are clear. The trade tended to grow like the population. The size of the press, and particularly the number of printers, tended to govern production (or supply) which implicitly reflected demand. While events may have sparked demand and helped the trade to grow, the normal processes of demographic growth seem fundamentally in control. Involvement in the trade, moreover, reflected a basic stability. The vast majority of professional printers, sponsors, and sellers, confined their activity to one locale, and once established in business, tended to remain in the trade more than a decade. Printers stayed in the trade close to twenty years, contributing immensely to the general stability of the press.

Continental patterns implicitly raise questions of regional variation, and on a regional scale the patterns are more complex than the composite view suggests. There were two distinct patterns of development among the three conventional regions of Anglo-America.[14] The first, which can be termed the New England pattern, characterized growth in the New England colonies, and the second, the Atlantic pattern, characterized growth in both the Middle and Southern colonies. The essence of the difference between the two was not time -- although printing in the Middle and Southern colonies began later than in New England -- but the basic course of growth.

Figure 2.4 displays the trends in involvement for the three colonial regions. Involvement in each rose with time, yet for the Middle and Southern colonies -- the Atlantic pattern -- involvement increased at a faster pace. While the level of involvement was lower in the Southern than in the Middle colonies, it nonetheless rose at the same rate in the two regions. Now, if time were the only controlling factor, involvement in the Southern colonies might be expected to rise at a faster rate than in the Middle colonies, just as involvement in the Middle colonies rose at a faster rate than involvement in New England. But it does not, and involvement in New England, while increasing throughout the period, does so at only half the Atlantic pattern rate, and not over twice the time.[15] There is, in short, a real difference.

Figure 2.4
 Early American Press:
 Growth Trends in Involvement by Region, 1639-1783



Notes: Trends are least squares estimates of logarithmic (logE) functions. For equations see note 15. Source: prosopography described in Appendix 1.

Moreover, because the trends for the Middle and Southern colonies differ essentially only in magnitude, the implication is that something is present in the Atlantic trade that is missing from the New England trade -- or vice versa -- something that is governing how many people were

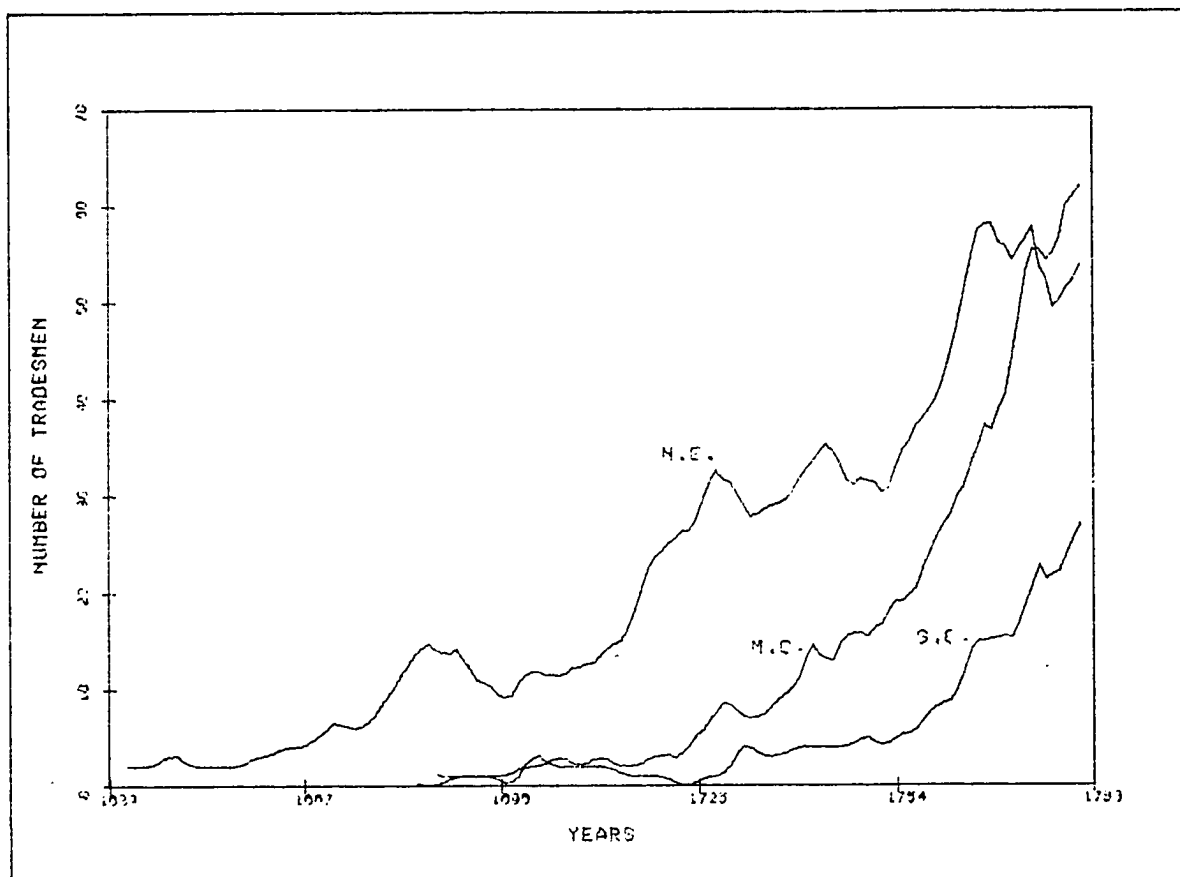
involved, and to a considerable extent, therefore, how much was being printed.

The details of professional activity within the regions offer a hint as to the cause of the difference between the New England and Atlantic patterns of involvement.[16] Involvement in all three regions was characterized by the same basic stability with between 75 and 87 percent of all printers never doing business in more than one location in the region in the 1639-1783 period. For sponsors and sellers, geographic stability was even more pronounced. In New England fully 97 percent (125 of 128) of all sponsors and sellers were active at only one place. In the Middle colonies 98 percent (62 of 63) never moved, and in the Southern colonies all sponsors and sellers practiced in only one location.[17] But differences do exist.

One difference between the two sections was the proportion of printers to sellers and sponsors. In New England only 43.6 percent (99 of 227) of all professional tradesmen were printers, compared with 56.6 percent (82 of 145) in the Middle colonies and 77.1 percent (54 of 70) in the Southern colonies. Another difference between professional tradesmen in the three regions was the length of time they were active in the trade. Again, taking into account activity beyond 1783, printers in New England remained active an average of 23 years. In the Middle

colonies the average was 18 years, and in the Southern colonies printers were active in the trade nearly 13 years. Time in the trade for sponsors and sellers was in general shorter, but paralleled the pattern of printers. In New England, the average length of activity was 14 years, in the Middle colonies 11 years, and in the Southern colonies, 8 years.[18] While a matter of only a few years, the differences in duration of activity, in combination with the relative stability of the trade, suggest substantially different patterns of growth.

Figure 2.5
 Early American Press:
 Number of Printers, Spensors, and Booksellers,
 By Region, 1639-1783

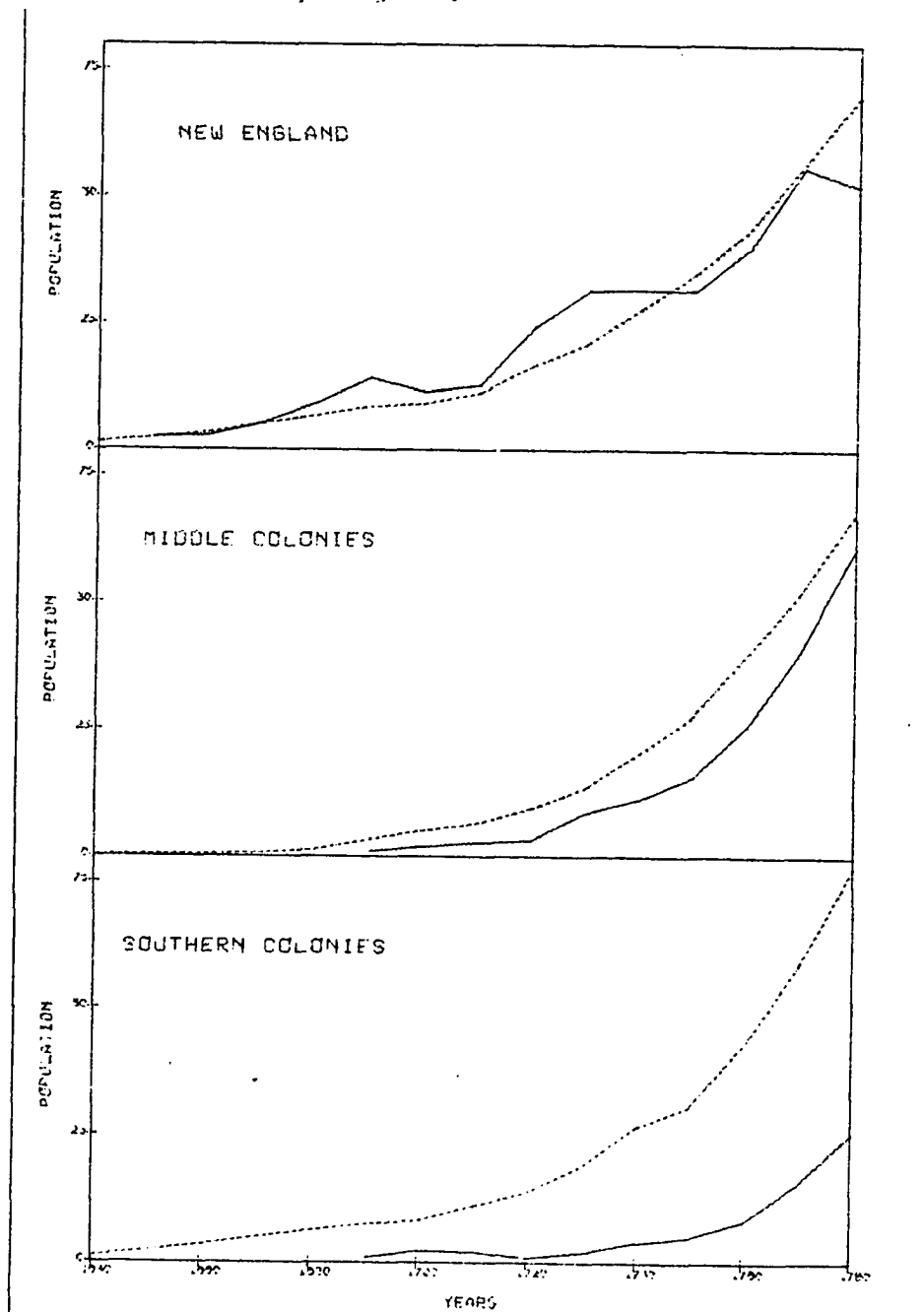


Notes: Lines are 5 point weighted running averages, computed as $X = (X_{t-2} * .1) + (X_{t-1} * .2) + (X_t * .4) + (X_{t+1} * .2) + (X_{t+2} * .1)$ where X is the value at time t . Source: Prosopography described in Appendix 1.

The actual numbers of people active in the trade in the three regions displayed in Figure 2.5 reveals the different patterns. The shapes of the curves bear a resemblance to the general course of colonial population growth, except for the bulge in the New England curve. The logical question is how

the press in the regions grew in relation to the parent populations. Figure 2.6 displays the growth of both the press and white colonial population in the three regions from 1640 to 1780. There are similarities; very broadly the regional relationships are much the same, increasing in a roughly geometric fashion as time goes on. Yet there are differences. The curves of press and population growth for the Middle colonies bear the most similarity. Indeed, the differences are minor at best. In the Southern colonies the level of the trade population, while mirroring the contours of general population growth, is substantially lower. Yet in both the Middle and Southern colonies, the size of the press never exceeds the proportional size of the population. Such is not the case with New England where the size of the trade exceeds the proportional size of the population in the first half of the eighteenth century.

Figure 2.6
 White Colonial vs Early American Press Population,
 By Region, 1640-1780



Notes: White population (in tens of thousands), dashed line; Press population, solid line. Sources: Historical Statistics (1976), Series 2:1-19; prosopography described in Appendix 1.

These differences can be placed only in a suggestive context, and an analogy between involvement and levels of employment seems appropriate. The Middle colonies, because of the near identity of press and population growth, might be characterized as exhibiting a condition something akin to full employment. Similarly, the Southern colonies might be characterized as exhibiting a condition of under-employment. And New England -- at least during those periods when the population of the trade exceeded the level of the general population -- seems to have been experiencing a condition of over-employment. The analogy is intended to convey a point. The argument here is that population is a common element in the growth of press in all areas. Logically it dictated demand, and empirically involvement paralleled its course, thus creating a balance between supply and demand, the analogous condition of full-employment. Yet only in the Middle colonies does the "ideal" relationship obtain. In the Southern colonies and in New England, the relationship between press and population growth departs from the ideal. The question, of course, is why?

The overriding similarity of press and population growth at the continental level, coupled with the different patterns at the regional level and the inherent stability of the trade, suggest that the cause of the differences in the patterns of press growth may have been due to distinct

demographic patterns within the trade itself -- patterns out of step with the general population. Put another way, the divergent patterns of press and population growth in New England and the Southern colonies may well be a result of a distinct pattern of demographic growth among tradesmen, one that may well explain, for example, the upsurge in the New England trade population in the first half of the eighteenth century as well as the low level of trade growth in Southern colonies.

The broad patterns of production and growth of the press suggest a number of things. First, the number of people in the trade, and especially the number of printers, is a statistically significant and logically necessary explanation for how much was printed. There may have been, and probably were, other reasons; there certainly were for the particular content of what was printed. Yet necessary to any explanation of how much (not what) was printed would be the existence of a trade. And the size of the trade would axiomatically place finite limits on the extent of production. Second, the growth of the trade paralleled the growth of the population it served. In all regions, the basic course of growth was the same. If the level of trade growth was lower in the Southern colonies than in New England, the trade, nonetheless, proceeded to grow like a population. Third, the trade in all regions was

characterized by a marked stability. Tradesmen did not, as a rule, move from place to place thus belying any wide variation in regional demand. Yet the length of time in the trade was considerably shorter in the Southern colonies than it was in either the Middle Colonies or New England. In combination, these three findings suggest that the different patterns of trade growth in the three regions may have been the result of the differing demographic experiences of tradesmen.

1. The 3.2% rate of increase was computed from 5 year totals (totals of discrete individuals active in consecutive 5 year periods). The computational formula used, $R = (\text{LOGe } (P_2/P_1) / N) * 100$, where R = rate of growth; P_1 = population at time 1; P_2 = population at time 2; N = number of elapsed years from time 1 to time 2, was adapted from George W. Barclay, Techniques of Population Analysis (Princeton, 1958), 28-33. Rates of population growth were computed from Historical Statistics of the United States: Colonial Times to the Present (Washington, 1976), Series Z:1-19. The 3.3% rate is for the total population of all colonies except Kentucky and Tennessee. The annual rate of growth for the potentially literate white population was 3.2% and paralleled the press' rate exactly for the 1640-1780 period. For a general discussion of colonial population growth see J. Potter, "The Growth of Population in America, 1700-1860," in D. V. Glass and D. E. C. Eversley, eds. Population in History: Essays in Historical Demography (London, 1965), 631-688.

2. The average annual percent change in the number of imprints and newspapers, counting 1 newspaper for each year's total production, was 9.9%. Because a fundamental assumption underlying the computation of the rate of growth is that a population increases in a compound manner, a comparable rate of growth (used in measuring the change in human populations) cannot be used for measuring the increase in imprints, thus the measure of percent change. The average annual percent change in the number of tradesmen was 3.0%.

3. The trend lines displayed are for logarithmic functions of the numbers of imprints and newspapers (production) and printers, sponsors, and booksellers (involvement), transformed to make the linear relationship more pronounced. The trends are least squares estimates for which the general formula is $Y^* = a + b(X)$, where Y^* is the estimated trend value, a an initial value, b a constant increase in quantity, and X the number of elapsed time intervals. The trend equations for the actual values are $Y^* = 36.9 + .84(X)$ for involvement, and $Y^* = 159.9 + 4.1(X)$ for production.

4. The correlation (r) of the residuals of the trends in production and involvement was .86, adjusted $r^2 = 73.6$. Refining the relationship by taking into account function and considering only printers, the correlation

remained the same, .86. When the trend in the number of sponsors and sellers alone was used, the correlation dropped to .49, adjusted $r^2 = 24.0$. Lagging the independent variable involvement by 1, 2, and 3 years did not appreciably better the relationship: 1 year, adj. $r^2 = 75.1$; 2 years, adj. $r^2 = 70.5$; 3 years, adj. $r^2 = 68.9$. Reversing the relationship, and lagging the independent variable production yielded only slightly lower coefficients: 1 year, adj. $r^2 = 65.6$; 2 years, adj. $r^2 = 62.7$; 3 years, adj. $r^2 = 62.3$. While involvement better (or more directly) explains the level of production than the other way around, no definitive judgment of causation is possible. For one thing, the index of tradesmen does not include either journeymen or apprentices which would be the most logical response to a perceived need to expand an operation. Thus the question of whether increased involvement led to increased production (the stronger statistical relationship) or whether increased production led to increased involvement cannot be answered.

5. Kenneth A. Lockridge, Literacy in Colonial New England: An Inquiry into the Social Context of Literacy in the Early Modern West (New York, 1974), 43-27, 74-83. Literacy is patently a complex subject. For an introduction into the issues involved, see Jack Goody, ed., Literacy in Traditional Societies (Cambridge, 1968), esp., 1-24. See also, Linda Auwers Bissell, "The Social Meaning of Female Literacy: Windsor, Connecticut, 1660-1775," Newberry Papers in Family and Community History 77-4A (1977).
6. Allan R. Fred, Urban Growth and the Circulation of Information: The United States System of Cities, 1790-1840 (Cambridge, Mass., 1973); idem, "Large-City Interdependence and the Pre-Electronic Diffusion of Innovations in the United States," in Leo F. Schnore, ed., The New Urban History (Princeton, 1975), 51-74.
7. Estimates of the literate adult male population were derived from Lockridge, Literacy in Colonial New England, 13-27, 74-83, and extrapolated to the general population. The age and sex composition of the population which is reflected in these estimates are, themselves, gross estimates derived mainly from Robert V. Wells, The Population of the British Colonies in America before 1776: A survey of Census Data

(Princeton, 1975), esp., 268-274.

8. The correlation between the trends in the white colonial population and the number of people involved in the trade was .96, adjusted $r^2 = 91.7$. The trend equations for the colonial white population (in tens of thousands) and the number of tradesmen (based on single year counts) at decadal intervals from 1640 are: $Y^* = 58.9 + 13.1 (X)$ and $Y^* = 34.9 + 7.8 (X)$, respectively. The number and rates of growth for both populations for the 1640-1780 period, as computed from Historical Statistics (1976), Series Z:1-19, and prosopography described in Appendix 1, are as follows: (The white population is given in tens of thousands)

Year	Trade Pop.	Growth Rate	White Pop.	Growth Rate
1640	2		2.6	
1650	2	0.0	4.9	6.3
1660	3	4.1	7.2	3.9
1670	4	2.9	10.7	4.0
1680	6	4.1	14.5	3.0
1690	15	9.2	19.4	2.9
1700	13	-1.4	22.3	1.4
1710	16	2.1	28.7	2.5
1720	26	4.9	39.7	3.3
1730	43	5.0	53.8	3.0
1740	45	0.5	75.6	3.4
1750	47	0.4	93.4	2.1
1760	69	3.8	126.8	3.1
1770	107	4.4	167.4	2.8
1780	126	1.6	215.9	2.5

9. Examples of this general view stem from Isaiah Thomas, The History of Printing in America, 2nd edn., Marcus A. McCorison, ed. ([1874] New York, 1970), 8. See also, Rollo G. Sliver, "Aprons Instead of Uniforms: The Practice of Printing, 1776-1787, Proceedings of the American Antiquarian Society, LXXXVII (1977), 111-194; and Stephen Botein, "'Meer Mechanics' and an Open Press: The Business and Political Strategies of Colonial American Printers," Perspectives in American History, IX (1975), 127-225.

10. These years of extraordinary production represent those times when the standardized residuals of the regression between the trends in production and involvement exceed 2 standard deviations. Those years and the standardized residuals are: 1766 (-2.20), 1767 (-2.95), 1772 (-2.30), 1774 (3.77), 1775 (8.25), 1776 (3.75), and 1782 (-2.40).
11. Two function groups can be defined on the basis of both specific imprint designations and supplementary evidence: (1) Printer, (2) Sponsor and Seller. (A third function group, Engravers, who comprised only 1.8% (12 of 651) of all tradesmen, have been excluded from consideration.) Tradesmen were assigned to a group on the basis of the majority of their imprint designations as well as the primary rule that a printer could sell and sponsor a work but a Sponsor or Seller could not print a work. For example, 99% of Benjamin Franklin's Philadelphia imprint record have printer designations. However, 1% (8) carries only the imprint designation of seller, specifically, "Sold By." Clearly Franklin was a printer and has been classified as one. The variety of imprint designations can be found in Roger P. Bristol, Index of Printers, Publishers, and Booksellers Indicated by Charles Evans in his American Bibliography (Charlottesville, 1961), iv.
12. Duration in the trade for printers, including activity after 1783, averaged 19.3 years (Std. Dev. = 16.3), Median = 14.6. Duration measured on the basis of imprint activity alone averaged 10.7 years (Std. Dev. = 11.2), Median = 6.5. Length of time in the trade for sponsors and sellers based upon all known activity averaged 13.2 years (Std. Dev. = 13.4), Median = 8.4. On the basis of imprint activity, duration averaged 8.7 years (Std. Dev. = 10.8), Median = 4.1. The difference in duration of activity between printers and sponsors and sellers, measured on the basis of all activity (the better guide) is statistically different at the .01 level ($F = 19.5$, $df = 472$).
13. The average number of imprints and newspapers for printers was 92.7 (Std. Dev. = 153.8), Median = 23.5. For sponsors and sellers, the average was 11.4 imprints (Std. Dev. = 32.3), Median = 2.8. The difference between printers and sponsors and sellers was again significantly different at the .01 level ($F = 56.6$, $df = 473$).

14. New England (Massachusetts, Connecticut, Rhode Island, New Hampshire, and Vermont), the Middle colonies (New York, New Jersey, Pennsylvania, and Delaware), and the Southern colonies (Maryland, Virginia, North Carolina, South Carolina, and Georgia).
15. The least squares trend equations for the logarithmic functions of involvement for the the three regions are: (New England) $Y^* = 1.1 + .01 (X)$, (Middle colonies) $Y^* = .87 + .02 (X)$, and (Southern colonies) $Y^* = .82 + .02 (X)$. The rate of increase is reflected in the b coefficient, which for both the Middle and Southern colonies is .02, twice that of New England's .01. Trends were computed from the start of continuous printing in the regions, which was 1639 in New England, 1685 in the Middle colonies, and 1726 in the Southern colonies. The least squares trend equations for the logarithmic functions of production for the the three regions are: (New England) $Y^* = 1.58 + .01 (X)$, (Middle colonies) $Y^* = 1.67 + .02 (X)$, (Southern colonies) $Y^* = 1.38 + .02 (X)$.
16. Aggregate totals from the three regions do not coincide with the totals for all colonies because of inter-regional movement. Thirty-three individuals, 30 printers (90.9%) and 3 sponsor-sellers (9.1%) were active in more than one region. The mean duration of all activity for these 33 tradesmen was 22.2 years (Std. Dev. = 13.6, Median = 20.0). The mean duration of imprint activity (i.e., before 1783) was 13.4 years (Std. Dev. = 10.0, Median = 11.0). Statistical tests fail to distinguish a difference between duration of activity or production among printers and sponsor and sellers because of the small number of sponsors. There was, however, a clear difference in production. The 30 printers averaged 115.2 imprints while the 3 sponsor-sellers averaged only 15.3 imprints. Only specific regional activity is included in the discussion that follows.
17. The number of locations at which tradesmen were active in the 1639-1783 period for the three regions, are as follows:

Printers

No. Locations	N. E.		M. C.		S. C.	
	No.	Pct.	No.	Pct.	No.	Pct.
1	79	79.8	62	75.6	47	87.0
2	11	11.1	14	17.1	7	13.0
3+	9	9.1	6	7.3	-	-
Totals	99	100.0	82	100.0	54	100.0

Spncsr and Sellers

No. Locations	N. E.		M. C.		S. C.	
	No.	Pct.	No.	Pct.	No.	Pct.
1	125	97.7	62	98.4	16	100.0
2	2	1.6	1	1.6	-	-
3+	1	.8	-	-	-	-
Totals	128	100.0	63	100.0	16	100.0

18. The breakdown of duration of activity in the trade by region for the two function groups by (1) all activity and (2) imprint activity is as follows: (All figures represent years, except sample sizes which are parenthetically enclosed.)

Printers

	N. E.		M. C.		S. C.	
	Activity		Activity		Activity	
	All	Imp	All	Imp	All	Imp
Mean	23.0	13.3	18.1	9.3	12.8	6.7
Std.	16.6	12.6	17.3	10.5	12.9	8.5
Median	23.3	8.5	11.5	5.1	7.0	3.1
(N)	(99)		(82)		(54)	

Spncscr and Sellers

	N. E.		M. C.		S. C.	
	Activity All	Imp	Activity All	Imp	Activity All	Imp
Mean	14.5	10.7	11.4	4.9	8.6	4.7
Std.	14.7	12.6	11.2	4.8	9.2	6.0
Median	8.8	5.5	8.7	3.2	4.2	2.1
(N)	(128)		(63)		(16)	

The differences between the duration of all activity among printers and spncscr and sellers are significantly different at the .01 level in New England ($F = 16.5$, $df = 224$) and the Middle cclonies ($F = 7.3$, $df = 143$); but not in the Southern cclcnies.

CHAPTER THREE

FOUNDATIONS I

New England

The demographic experience of the early American press seems to have influenced its growth and structure more than any other single thing. The particular demographic patterns in all the colonies profoundly affected not only the size and stability of the press but also the fundamental nature of associations within the trade. And the story of the demographic foundations of the press is one not only of growth and structure but also of success and failure. This and the following chapter present a two-fold story. The first and most important concerns the demographic experience of the press, first in New England and then in the Southern and Middle colonies. The second, while fundamentally related to the first, is unique. It is the story of families and involves not only the demographic fortunes of the men and women who were the press, but also the variety of personal strategies adopted to cope with demographic luck, both good and bad. Families, as we shall see, were the foundation of the trade and their fortunes were those of the press.

In order to examine the demographic experience of the press it is necessary to adopt a "demographic perspective." Central to this approach are the notions of "at risk" and the "demographic lottery." [1] The first is simply the idea that the number of people experiencing anything is a function of the number around to do so -- the number who are "at risk." The more precisely the population at risk can be identified, the more precisely the experience can be viewed. In regard to printing the idea can be seen in the simple question of who was "at risk" to print?. The equally simple answer is "all printers." But a corollary of this question which bears more directly on growth is: who was "at risk" to enter the trade to become a printer and so at risk to print? To some extent this might be defined as anyone, but more precisely as anyone with training. One needed training to be able to print, and hence be at risk to print. So the question then becomes how the trade functioned to supply, maintain, and expand the "at risk" pool of trained printers, for the size of this pool would dictate growth. To illustrate the point, if the pool of trained printers were comprised mainly of the sons of printers, and if there were few sons, the growth of the trade would be negligible or non-existent. If there were many sons, growth would be pronounced.

This leads to the second concept, that of the

"demographic lottery," which is simply the idea that to a certain extent growth is a matter of chance. If, indeed, the "at risk pool" consisted of sons, and a printer had two sons and they in turn each had two sons, the population of printers would grow geometrically. But if the two sons did not in turn have sons -- if they had daughters -- then the continuation and expansion of the trade through training (and thus the population at risk to print) must be drawn from either the husbands of the daughters or from new, perhaps immigrant printers, who must then be trained (or have been trained elsewhere) and who must themselves begin the process, facing the same demographic lottery.

On large scales the odds in the lottery will ultimately even out, but on smaller scales the demographic draw can have profound effects. The English aristocracy, for example, was forced by the luck of the demographic draw which left it as a group with more daughters than sons to adopt particular strategies to insure the continuation of its wealth.[2] With the press, winning and losing in the lottery were both absolute and relative terms. Those who succeeded in the trade beat the demographic draw. They lived and had sons who lived and who continued to publish or print. Those who did not succeed either died or had no sons through whom they could pass on their trade. These are the extremes, neither of which is absent from the collective experience of the New

England press. But between the extremes were a variety of other experiences, examples of relative winning and losing which highlight not only the impact of the demographic draw but also the strategies employed by individuals to cope with their demographic luck and thereby secure a future in the trade for the family.

Obviously in all of this some assumptions are being made about success as well as motivation. Success, implicitly, is assumed to be survival and the continuation of the trade. While admittedly a narrow definition, it does capture the prerequisites of both larger financial and social success. One must survive to succeed and one must continue a business if that business is to be passed on to one's family either at death or when one's productive years have ended. Thus success is used in the sense of providing for both self and family a continuation in the trade, and hence the continuation of the trade itself. Motivation is an entirely different matter. Yet the assumption has been made that continuing the trade, and by doing so securing at least the chance for larger financial and social success for one's family, was thought to be a good and desirable end. In short, printers who were in the trade to make money, are assumed to have wanted to stay there, and have their children do the same.

An absolute winner in the demographic draw is a man who

has two sons surviving to their majority who in turn continue the business when the father retires or dies. Perfect geometric growth. An example is Thomas Fleet (1685-1758) who immigrated to Boston from England in 1712 and began printing the next year. In 1715 he married Elizabeth Goose, by whom he had two sons, Thomas, Jr. (1732-1797) and John (1734-1806). In 1758 Thomas, Sr. died. His sons formed a partnership, took over the business, and continued to print until the end of century. By the standard established, Fleet won the demographic draw. He lived, had two sons, enjoyed a productive career, and his sons continued his business. An absolute loser does not survive and has no sons. An example is Thomas Short, the first printer in Connecticut, who began printing at New London in 1708. Born in 1682, Short was apparently apprenticed to his brother-in-law, Bartholomew Green, Sr. (1667-1732). In 1705 Thomas married Elizabeth Frost and in 1708 moved to New London to set up shop. In 1712 he died leaving no children and the name Short disappeared from the roll of New England printers. Thomas Short did not succeed.

Relative winners are more numerous and their histories are examples of personal strategies meant to insure survival in the trade. One type does not survive but has children. James Franklin (1697-1735) is a case in point. Franklin began printing in 1718. While from 1718 to 1723 he enjoyed

the prospects of a future partner in his young apprentice brother Benjamin, in 1723 Benjamin left Boston for Philadelphia. In that same year James married Ann Smith (1695-1763) and after three more years in Boston moved on to Newport, Rhode Island. James and Ann Franklin had six children, one boy, James, Jr., and five girls, one of whom died in childhood.[3] In 1735 James, Sr. died leaving Ann with two young children. Ann, however, continued the business alone until 1748 when she brought James, Jr. into partnership. In 1762 James, Jr. died unmarried and without children, leaving Ann again with a business and an unmarried daughter. That same year she entered into partnership with Samuel Hall (1740-1807). After a year Ann died and Hall married her daughter Sarah, staying in Newport another five years before moving on to Salem. The Franklin example is instructive not only because it illustrates the lottery and the impact of mortality (James, Sr. and Jr.), but also because of the way the business was continued. Ann Franklin very clearly continued the business for her son. On his death she faced the prospect of losing everything if she did not bring in someone else. She brought in Hall and Hall married Sarah, securing for himself a future in the trade as Ann had secured a future for Sarah. Combatting the demographic draw was clearly not easy.

Daniel Fowle (1715-1787) illustrates another type of

relative winner, one who survives but has no children. Fowle began printing in Boston in 1740 in partnership with Gamaliel Rogers (1704-1775) and financed in part by Daniel's brother, John (1714-1764), a Cohasset minister and silent partner in the firm of Rogers and Fowle from 1740 to 1750. In 1750 Daniel Fowle and Rogers dissolved their partnership.[4] In 1751, Fowle married Lydia Hall, the aunt of the Samuel Hall who would marry Sarah Franklin. No children were ever born to Daniel and Lydia, yet Fowle, after leaving Boston in 1756 for Portsmouth, New Hampshire, continued in the trade until his death in 1787 and, indeed, dominated printing in New Hampshire for over twenty years. The question is, quite simply, how? For one thing he had another brother, Zechariah (1724-1776), and his brother John had two sons, Zechariah (d. 1784), and Robert Luist (1743-1802), all of whom worked for or with Daniel in Boston or Portsmouth. Daniel also adopted around 1784, the year his nephew Zechariah died, John Melcher (1759-1850) as his son and heir, and Melcher continued Fowle's business in New Hampshire on his death in 1787. Thus kin and not children helped Fowle to beat the demographic draw and to some extent insure the continuation of his trade.

If too much emphasis seems placed on the demographic draw -- how many children, and in particular, how many sons one had -- recall the idea of "at risk." Without new

printers at risk to enter the trade when old printers retired or died the trade must always begin from scratch. The reason Ann Franklin did not bring in another printer in 1735 when James, Sr. died was probably that only nine printers were practicing in all of New England in that year. And while apprentices of these men may have been a potential source, they were the sons or relatives of the nine printers with their futures already mapped out. The point is that in 1735, when Ann Franklin very likely needed a printer to help her continue the business for her son, the population at risk to enter the trade was not large enough to supply her. And what of Fowle? Had he not had the benefit of brothers and nephews would he have succeeded in the trade? Clearly there is no way to tell. But the fact that he did, and that he did succeed with the help of trained kin -- kin Ann Franklin did not have available to her -- suggests the importance of a pool of potential tradesmen divided along family lines, in short, a population of printers at risk.

The hands-down winners in the lottery were the Greens, the family that dominated printing in New England for almost the entire colonial period. As a group the Greens not only won the demographic draw but through a web of interlocking family alliances with the Kneelands and the Drapers virtually guaranteed their survival in the trade. The full impact of the Green experience on printing in New England

can be seen by examining the history of the trade from its beginning in 1639 to 1750.

The first press in Anglo-America was brought to Massachusetts in 1638, along with the first printer, Stephen Daye (c. 1620-1649). [5] Daye worked the press under the auspices of Harvard College from 1639 until his death in May 1649. At that point, Samuel Green I (1615-1702) took over the operation of the press. Green, a man with no formal training, clearly struggled to learn the trade, and even by 1660 when another printer, Marmaduke Johnson (d. 1674), was secured from England, Green was less than an accomplished craftsman. Yet what Green lacked in skill, he made up for in demographic luck. He survived and among his thirteen children by two wives, were three sons, Samuel II (1648-1690), Bartholomew (1667-1732), and Timothy (1679-1757), all of whom followed their father in the trade. Johnson enjoyed no such fortune. From 1660 to 1671 he printed in partnership with Green, and from 1672 to 1674 operated his own press in the Cambridge shop with Green. In 1674 Johnson secured a license to print in Boston, but before he could begin printing there he died, leaving a wife, a young daughter, and an unmanned press.

John Foster (1643-1681), another untrained printer, bought Johnson's press in 1675. [6] Foster apparently took on Richard Pierce as an employee that year, although Pierce had

no formal training either. In 1679 Foster seems to have hired even another untrained hand, James Glen, a recent immigrant to Foster's hometown of Charleston, Massachusetts. Foster, like Daye and Johnson, was a loser in the demographic draw. In 1681, at the age of thirty-three, he died, unmarried and without children. Foster's operation was taken over by Samuel Sewall who functioned only as manager of the press. Samuel Green II, who had learned the trade from his now accomplished father, did the actual printing with the help of Pierce and probably Glen. In 1686 Green assumed control of the Sewall shop and took in John Allen (c. 1660-c. 1727) and his younger brother Bartholomew as apprentices. Pierce, with the aid of Glen, struck out on his own. In 1690, Samuel Green II died, unmarried. Bartholomew returned to Cambridge where his father was still printing, and Allen went to work for Benjamin Harris who had immigrated from England in 1686 with his wife and son, Vavasour. Pierce probably died in 1691, leaving a wife of only a year, and the Harrises acquired his press. In 1692, Bartholomew set up shop in Boston with Timothy as apprentice, and in 1694 took on John Allen as a partner. Both Benjamin and Vavasour Harris returned to England in 1695 leaving Green and Allen with a monopoly on printing. In 1700 Timothy Green opened his own shop in Boston. At the close of the seventeenth century the only two printing

houses in New England were very clearly Green concerns.

It is worth pausing for a moment to assess the first half century of printing in New England from a demographic point of view. Of the seven men who printed in New England before 1690 only one, Samuel Green I, was a winner in the demographic draw. Daye, Johnson, Foster, Pierce, Glen, and Samuel Green II were all absolute losers. None of them survived long or had sons who could carry on their trade. And even Samuel Green I, had it not been for his two other sons, Bartholomew and Timothy, could not be considered a winner in the demographic draw. Yet Green's very survival allowed him to have children and to train the sons he had. The impact on the growth of the trade was pronounced, for the deaths of the young printers imposed limits on the expansion of the pool of trained printers. Only the Greens as a family truly succeeded in the trade in the seventeenth century for there were more losers than winners in the demographic draw. The situation would change dramatically before the middle of the eighteenth-century.

The reproductive luck of Bartholomew and Timothy would sustain the Greens for more than fifty years. Bartholomew, who married Mary Short in 1695 and, in 1712, Hannah Toppan, niece of Samuel Sewall, had only one son, Bartholomew, Jr., but additionally three daughters. In 1702 Timothy married Mary Flint, by whom he had Timothy II (1703-1763), Samuel

III (1706-1752), Nathaniel (1710-1758), Jonas (1712-1757), John (1719-1757), and a daughter Mary. Together, Bartholomew and Timothy had a pool of six sons and four daughters (whose marriages would produce sons-in-law) to draw from to insure the continuation of the family in the trade. Whether they thought of their children as a pool is something else but really not the point -- the children were there. And if the combined demographic draw of Bartholomew and Timothy Green was not enough to insure the success of the Green trade, a series of family alliances worked to bring almost the entire New England printing establishment into the Green fold.

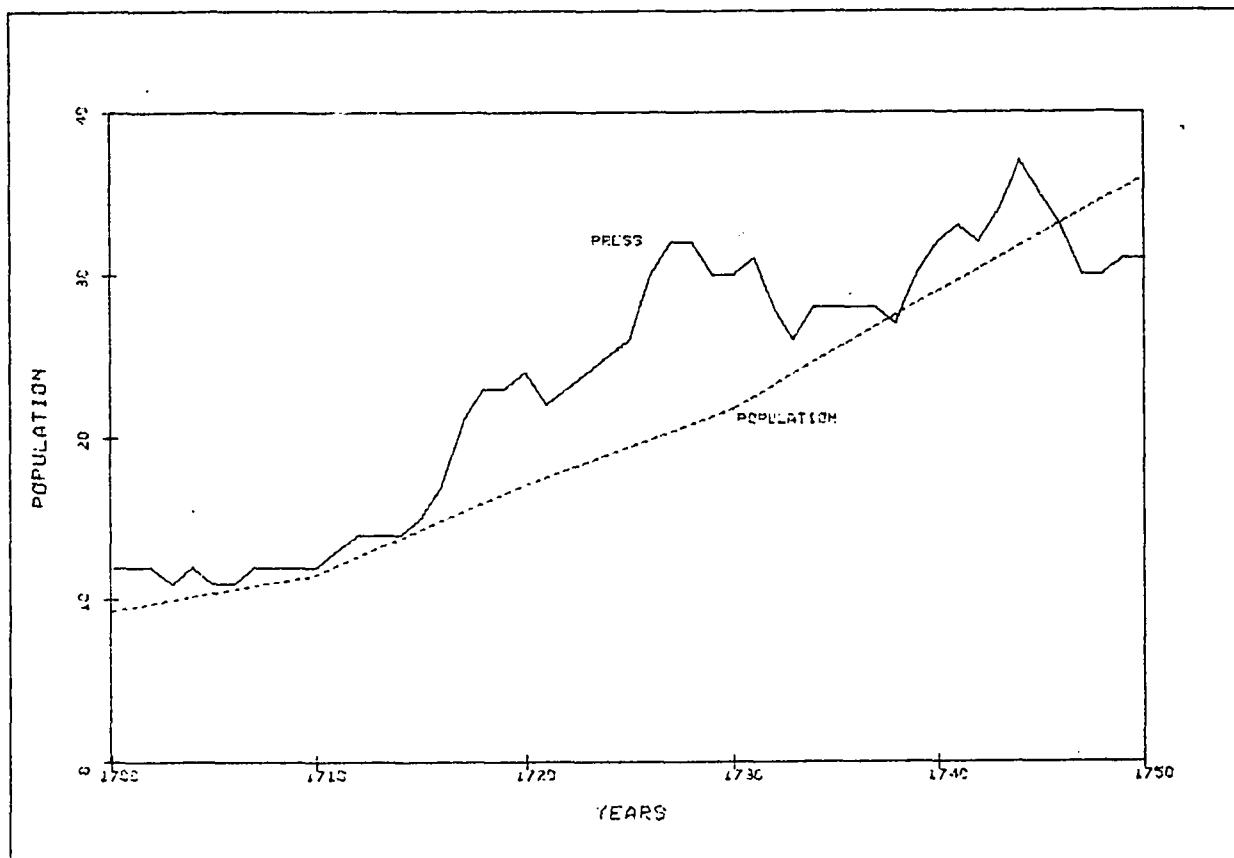
In 1713 Timothy Green left Boston for New London to fill the vacancy left by the death of Thomas Short, but leaving Bartholomew, no longer in partnership with John Allen, the only Green printer in town. Allen was in business for himself and in that same year Thomas Fleet began to print. In 1718 James Franklin also opened shop, but so did Samuel Kneeland (1697-1769) and Kneeland was very much a Green. His mother was Mary Green, Bartholomew's and Timothy's sister, and he married Bartholomew's daughter Elizabeth.[7] In 1725 Bartholomew, Jr. began to print. In 1726 John Draper entered the trade and, like Kneeland, Draper was solidly a Green. His wife was Bartholomew's youngest daughter Deborah, and he would assume control of his father-in-law's shop in 1732. In 1726 as well, Timothy

Green II came to Boston from New London and entered into partnership with his uncle Samuel Kneeland. In 1734, Bezoune Allen, who in that year married Bartholomew Green, Sr.'s eldest daughter Mary, began to print. Along with John Bushell (c. 1715-1761), a former Green apprentice, Allen would form a partnership with Bartholomew Green, Jr. in 1736. Thus from two in 1700, the pool of Green family printers grew to eight by 1736, a four-fold increase in little more than a generation.

What all this meant for New England printing was excessive growth. Too many winners, and particularly too many Greens -- an average of 66 percent and never less than 40 percent of all printers in New England in the first half of the eighteenth century -- appears to have pushed the population of printers, and with them the entire New England press, over the smooth and easy doubling every twenty-five years that would have paralleled the population they were in business to serve. Figure 3.1 displays the course of trade and population growth from 1700 to 1750.

Figure 3.1

New England Colonial vs Press Population, 1700-1750



Notes: Colonial population (in tens of thousands), dashed line, press population, solid line. Press population excludes one-time participants. Sources: Historical Statistics (1976), Series Z:1-19; prosopography described in Appendix 1.

From 1700 to 1725, the outlines of the trade are fairly clear. John Allen, Bartholomew Green, Samuel Kneeland, Timothy Green I, briefly Thomas Short, Thomas Fleet, and James Franklin were the only printers around. From the mid-1710s to the mid-1730s, precisely the time when Figure 3.1 shows the population of the New England press climbing

way above the general level of population, the situation changed. Death -- Bartholomew Green, John Allen, James Franklin -- was taking its toll, but coming to maturity and entering the trade were members of the Green family -- John Draper, Bartholomew Green, Jr., Timothy Green II, Bezoune Allen, Samuel Green III, and Jonas Green. The particular New England pattern of trade growth was the result.

In the first half of the eighteenth century printing in New England was a matter of Greens and non-Greens.[8] Production reflected this split as well as the predominance of this single family. From 1700 to 1750 the Green share of the market, that is, New England imprints bearing Green family printer designations, averaged 56 percent a year compared to only 15 percent for non-Green family printers, and 30 percent bearing no printer designations.[9] Obviously there were more Green family printers, but proportionally Green production exceeded their numerical advantage in people. While the ratio of Green to non-Green printers averaged 1.7 to 1 for the 1700-1750 period, the ratio of Green to non-Green imprints was 3.2 to 1.[10] The Greens enjoyed this advantage for most of period, but things did change. From 1721 to 1740, the Green share of the market was 3.4 to 1 in imprints while only 1.8 to 1 in printers. From 1741 to 1750, however, the ratio of Green to non-Green

imprints dropped to 1.3 to 1, below the 1.5 to 1 proportion they held in printers. While hardly an unfavorable position, it represented a precipitous decline.

Of course this picture of the trade is from the outside looking in. One can see that when Timothy Green I left for New Haven, Thomas Fleet began to print. When John Allen stopped Bartholomew, Jr. started. When James Franklin left for Newport, John Draper set up shop and Timothy II came to town. Whether this sort of thing entered into decisions to begin business, form partnerships, or take in an apprentice, is impossible to say. Similarly, whether family was always ready to fill a gap (as in the case of Thomas Short) or to supply if need be a position in the trade (as with John Draper) simply cannot be known for none of these printers left any personal records of how he thought on such matters. But following one person, Timothy Green II, through his career, suggests that family and the continuation of family in the trade were very real concerns.

In 1724 Timothy Green II came to Boston from New London to work for his uncle Bartholomew Green. In 1725, he returned briefly to New London. Why cannot be said. Yet Timothy was twenty-two and his prospects may well have been the cause. His cousin, Bartholomew, Jr., had begun to print that year. John Draper had not yet started to print but his marriage to Deborah Green may already have been set.

Timothy, as the next senior Green male to Bartholomew Jr., may simply have had nowhere to go until, in 1726, he returned to Boston to enter into partnership with Kneeland, his uncle, but his senior by only six years. It was a logical match. Kneeland was family and consequently in the pool.

For twenty-six years Kneeland and Green printed together. Kneeland married and had two sons, Daniel (1725-1789) and John (1729-1795). Timothy never married, thus the question of succession in the firm seems moot. In their twenty-six years together, moreover, Kneeland and Green formed the leading printing house in Boston, producing more than 20 percent of all recorded imprints in the period from 1726 to 1752.[11] Abruptly, in 1752, Timothy returned to New London. Why? Timothy was not at the end of his career but certainly could not count on too many more years. And while the Green family share of the Boston market had declined, his and Kneeland's share was by all appearances quite good, never dropping below 17 percent of all Boston imprints after 1730. But Timothy's closest kin were in New London. His father was ill, but, more telling it would seem, was the death of his brother Samuel who had worked in the New London shop all the time Timothy had been in Boston. With another brother, Jonas, in Maryland, Samuel's death left only Nathaniel and John in New London. Perhaps two men

were not enough to keep the business up. Timothy, now part of the Green pool himself, returned to New London and assumed control of his ailing father's shop. Timothy I died in 1757, as did John. Nathaniel died the following year, leaving Timothy II with a business -- but also with Samuel's three sons, Thomas (1735-1812), Timothy III (1737-1796), and Samuel (1743-1799), all of whom were nearing majority. When Timothy II died in 1763, he was succeeded by his nephew Timothy, and the Green family trade was given another chance by the luck of the demographic draw.

After 1750 the contours of the New England trade began to change in line with the changes in the general population. Part of the story was geographical dispersion. In the three decades after 1750, presses were established in Portsmouth, New Hampshire, Newburyport, Salem, and Worcester Massachusetts, New Haven, Connecticut and Providence Rhode Island. Yet the essential demographic dynamic of trade growth as well as the familial foundation of the trade remained unchanged.

The general impetus for movement came from overcrowding in the Boston trade. Too many printers, and again, too many Green family printers led some members of the pool to leave; it was either that or compete with family. Admittedly there were instances in which official censorship preceded

migration. James Franklin became embroiled with Massachusetts authorities in 1723 over the publication of his New England Corrant. Even earlier, in 1690, Benjamin Harris' Publick Occurrences had been suppressed. In both cases, however, neither man left town as an immediate result of the controversy. Harris remained in Boston until 1695, Franklin until 1726. Daniel Fowle did leave Boston for Portsmouth in 1756 as a direct result of controversy. But such was not the case among the Greens. In all likelihood, the Boston trade simply no longer held the advantages it once had.

Bartholomew Green, Jr. was the first to leave. In 1751, along with John Bushell, he left Boston for Halifax, Nova Scotia. Green died shortly after arriving, but Bushell stayed and opened shop. With their departure the Boston situation of too many Greens was partially diffused for two of the nine Green family printers in Boston were removed from the competitive pool. When Timothy Green II left Boston in 1752 -- although for different reasons -- the pressures of overcrowding were again alleviated. Within three years, Green family printers in Boston had been cut by a third. And when Daniel Fowle left Boston for Portsmouth in 1756, there was even more room for the next generation of Green family printers which was rapidly coming to the fore.

When Timothy Green II left Boston in 1752, Samuel

Kneeland's two sons, Daniel and John, were nearing their majority. In 1759 they formed a partnership and began to print in their father's shop. In 1765 the elder Kneeland retired and his sons continued in business until 1775.[12] An important family alliance was made in 1754 when John Gill (1732-1785), a former Kneeland apprentice, married Samuel's daughter Ann (b. 1735). In that year Gill began printing in partnership with Benjamin Edes, Sr. (1732-1803). Gill and Ann Kneeland had five children including two sons. One, John, Jr., never married and the other, Moses, moved to Princeton, New Jersey after his father died in 1787. But Gill's daughter, Elizabeth, married Edward E. Powers (d. 1811) who in 1778 set up shop in Boston, continuing the Gill and -- by association -- the Green family trade.

Gill was a relative winner in the demographic draw, securing for at least one daughter a future in the trade. Yet some hint of the strain which the familial foundation of the trade may have placed on partners and friends can be seen in the association between Edes and Gill. Edes was an absolute winner in the draw. He survived and had two sons, Peter (1755-1801) and Benjamin, Jr. (1756-1840). In 1776, after twenty-one years together, Edes and Gill dissolved their partnership and Edes went into business with his sons. There is no way to tell what prompted the dissolution of their association. Isaiah Thomas, a contemporary of both

men, recalled that Gill "did not possess the political energy of his partner," but one conclude that the obligations of family played a role as well.[13] Edes had two sons to set up in business while Gill's daughter Elizabeth would marry Powers who would open shop within two years. Whatever the reason, the partnership was dissolved and new printers -- family printers -- entered the trade, a result of the demographic draw. While the trade grew, its foundation remained the same.

And so it was with John Draper who, in the Green way, was another winner in the draw. He survived and had two sons, Richard (1727-1774) and John (b. 1728), and a daughter, Lydia (b. 1729). John never took up the trade but Richard did in 1751, the year after he married Margaret Green, Bartholomew, Jr.'s daughter. The family tie was reinforced once again in 1755 when Lydia Draper married John Green. And yet another Draper, Richard's cousin Samuel, entered the trade in 1757. Neither Richard nor Samuel were winners in the demographic draw, and it was only a surplus of family that kept the Drapers from dying out completely. Richard and Margaret had no children, and Samuel had only two young daughters when he died in 1767. When Richard died in 1774, Margaret continued the business, for a short time with John Boyle, a former apprentice of her brother John Green. Margaret, however, embraced the loyalist cause in the

Revolution -- the only Green who did -- and in 1776 left Boston for Nova Scotia. But another Draper, Samuel's younger brother Edward (b. 1749), took over Margaret's business in 1776 and continued it until 1831.

With the Greens in Connecticut, the story was much the same. When Timothy III assumed control of the New London shop in 1763, the family pool of printers was larger than one shop could assume. In that year, Timothy married Rebecca Spooner whose two brothers, Judah Paddock (1748-1807) and Alden (1757-1827), were thus added to the pool. The next year, Timothy's brother Thomas, who had worked for James Parker in New Haven from 1755 to 1764, moved to Hartford and set up shop, taking in Ebenezer Watson (1744-1777) as a partner in 1768. In 1766, Samuel Green IV began business in New Haven where he would remain until his death. Thomas joined Samuel in New Haven in 1768, and he too would there remain until his death. And when Samuel died in 1798, Thomas formed a partnership with his son, Thomas, Jr. Timothy III, meanwhile, with the two Spooner family members expanded northward up the Connecticut River, setting up shop in Norwich in 1773, Dresden, Vermont in 1778, and Winchester, Vermont in 1780. Thus with the Connecticut Greens the family continued in the trade into the nineteenth century by virtue of its demographic luck and interlocking family alliances.

The collective demographic experience of the New England press dictated the pace and course of growth of printing in the region in the colonial period. The simple facts of birth, death, and marriage profoundly affected the entire trade for they determined at any point in time who and how many would be at risk to print. Encompassed by this dynamic, families struggled when demographic luck was bad -- as with the Franklins -- or rode competitive crests when demographic luck was good -- as with the Greens in the first half of the eighteenth century. Yet at all times, family played a central role in the maintenance and expansion of the trade. And in New England, families -- the Greens, Fleets, Fowles, Franklins, Kneelands, Drapers, Gills, and Edes -- were the foundation of the trade and the basis of association among its members. In New England, the course of trade growth was the course of family growth. As the experience of the Greens reveals the strength of family in the trade, it also recalls Benjamin Franklin's network of associations and how it formed the underlying structure of his business. Franklin's network was composed largely of professional associations while that of the Greens' was made up of kin. The difference, as we shall see, reflected not only differing demographic experiences, but also a difference in trade "styles."

1. The demographic perspective, as well as concise discussions of both its strengths and weakness can be found in Daniel Scott Smith, "The Estimates of Early American Historical Demographers: Two Steps Forward, One Step Back, What Steps in the Future?" Historical Methods, XII (1979), 24-38; idem, "A Perspective on Demographic Methods and Effects in Social History," The Newberry Papers in Family and Community History, No. 77-4k (1977).
2. Lawrence Stone, The Crisis of the Aristocracy, 1558-1641 (Oxford, 1965).
3. James Franklin's children were Abiah (c. 1726-1754), Ann (c. 1728-1730), Sarah(?) (c. 1730-1807), Mary (d. after 1752), Elizabeth (d. after 1761), and James, Jr. (c. 1724-1762). The year of birth for both Sarah and James, Jr. are tentative. The editors of the Franklin Papers give no year of birth for Sarah and between 1730 and 1732 for James, Jr. Franklin Papers, lix-lx. Benjamin Franklin, however, recalled that when he visited his ailing brother in 1733, he promised to teach James, Jr. the trade, the boy was "but 10 Years of Age." This would place James Franklin, Jr.'s birth in 1724. Franklin, Autobiography, 169.
4. Gamaliel Rogers was a relative loser. While he survived, there is no evidence that he had any children or kin connections in the trade. He was active in Boston from 1727 to 1754 as a printer, and from 1754 to 1775 as a dry goods and grocery merchant.
5. The Cambridge press has received considerable attention, yet differences still exist as to whether Stephen or Matthew Daye was the first printer. For a review of the scholarship see, John Tebbel, A History of Book Publishing in the United States (New York, 1972), I, 6-11. The view adopted here is as follows: Stephen Daye was the son of Matthew Daye (c. 1594-1668), whose name appears on the Cambridge imprints from 1639 to 1649. Matthew was a locksmith, and functioned only as manager of the press; Stephen did the actual printing. One of the Dayes definitely died in 1649 and the other not until 1668. The best evidence suggests that it was Stephen Daye who died, and hence that he was the first printer. The debate, while important, is not crucial to the argument advanced below. See George E. Littlefield, The Early Massachusetts Press, 1638-1711 ([1907] New York, 1969), 95-143; Isaiah Thomas, The History of Printing in America, 2nd edn., Marcus A. McCriscon, ed. ([1874] New

York, 1970), 42-54.

6. Foster appears to have acquired some knowledge of printing prior to 1675 while overseeing the printing of an almanac, which he compiled, in 1674; or while he was a tutor at Harvard from 1667 to 1669. See Charles Wetherell, "John Foster," in Benjamin Franklin, V, ed., Boston Printers, Publishers, and Booksellers, 1640-1800 (Boston, 1980), 178-180.
7. There is a conflict between the Green and Kneeland genealogies on this point. The Green genealogy (William C. Kiessel, "The Green Family: A Dynasty of Printers," New England Historical and Genealogical Register, CIV (1950), 81-93) has Elizabeth married to Kneeland, and disputes the Kneeland account (Sillman Foster Kneeland, Seven Centures of the Kneeland Family (New York, 1897), 51, 95-102) which has Samuel marrying Mary Alden, great-granddaughter of John and Priscilla Alden, because, in general, the genealogical tree stems back to too many illustrious descendants. Even taking the Kneeland view, Samuel Kneeland was unquestionably the son of a Green female.
8. The Green presence in the New England trade, needless to say, has not gone unnoticed. See, for example, Stephen Botein, "'Meer Mechanics' and an Open Press: The Business and Political Strategies of Colonial American Printers," Perspectives in American History, IX (1975), 152-153.
9. Percentages are based on the number of New England imprints with printer designations produced from 1700 to 1750. Roughly 30% of all imprints have no printer designations whatsoever, and, while all of these were obviously printed, no attempt has been made to assign them to either group. A breakdown of the various designations is as follows:

Designations	No.	Pct.	Yearly Avg.	Std. Dev.	Median
No Designation	807	19.1	18.6	7.9	18.4
No Printer	505	11.9	11.0	8.7	7.9
Green Family	2,167	51.3	55.8	18.5	50.7
Non-Green	743	17.6	14.6	11.9	12.4
Totals	4,222	99.9	100.0	-	-

A breakdown of the Green share of the New England printing market for the 1649-1783 period is as follows:

Designations	No.	Pct.	Yearly Avg.	Std. Dev.	Median
No Designation	2,197	18.4	16.0	10.0	15.8
No Printer	726	6.1	5.8	7.6	2.9
Green Family	5,090	42.7	58.4	24.9	54.4
Non-Green	3,921	32.9	26.1	19.5	14.9
Totals	11,934	100.1	100.0	-	-

In Connecticut, on a yearly basis, the Greens averaged 74.0% (Std. Dev = 33.2) of all imprints with given printer designations from 1708 to 1783. In Massachusetts alone, thus excluding the Connecticut Greens, that average was 58.1% (Std. Dev. = 25.3).

10. Ratios represent the ratio of either Green production or involvement to the corresponding non-Green percentage. The ratios exclude those years in which the Green family held a monopoly on the trade (1700-1706), and the years 1708, 1710, and 1712, when the ratios are so imbalanced to the Green family that an average which included these would be misleading. Thus the ratios represent a conservative statistic.
11. Charles Wetherell, "Timothy Green II," in Franklin, ed., Boston Printers, 245-248.
12. When Samuel Kneeland retired in 1765, Daniel and John formally dissolved their partnership. John printed with Seth Adams (1740-1782), a former Kneeland apprentice and employee, until 1772 when Adams left the trade. Daniel printed alone from 1765 to 1772, and then in partnership with Nathaniel Davis from 1772 to 1774. The relationship between the two brothers was not, by all appearances, strained, but rather an instance where two shops worked in conjunction. Nathaniel Low's almanacs, for example, were printed exclusively by both shops from 1766 to 1770, and then by Kneeland and Adams in 1770 and 1771. Both Kneelands ceased printing in 1775 with the outbreak of hostilities with the British and never resumed business.
13. Thomas, History of Printing, 137.

CHAPTER FOUR

FOUNDATIONS II

The Middle and Southern Colonies

In the Southern and Middle colonies, where the Atlantic pattern of growth prevailed, the demographic experience of the press differed. In the Southern colonies there were far more losers than winners in the demographic draw. The majority of printing families failed to sustain themselves in the trade because of death. And this led not simply to the cessation of family lines but, cumulatively, to a small pool of trained printers, which impeded trade growth. In the absence of family pools, tradesmen turned to more "professional" associations to bolster failing family lines, creating a dual foundation to the trade. In the Middle colonies, where the demographic experience of the press was generally good, this dual foundation of familial and professional associations existed from the start. While families were very much a part of the Middle colonies trade, they coexisted with non-familial, professionally associated groups.

The demographic experience of the trade in both regions

governed the course of growth, for with survival came the ability to train new men. Yet the nature of demographic success and associational patterns in both regions stand in contrast to New England. Because of bad demographic luck, the associations southern tradesmen formed were in large measure a matter of necessity. The interlocking family alliances characteristic of the New England trade were, in contrast, essentially a matter of choice. Yet in both New England and the Southern colonies the course of family growth was the course of trade growth. Such was not exclusively the case in the Middle colonies where the combination of general demographic success and a blend of familial and professional ties gave the trade a particularly expansive quality. In the Middle colonies, trade growth was neither stunted, as in the Southern colonies, nor excessive, as in New England, but in line with the general population. And while here, as elsewhere, printers trained new men, here, as nowhere else, new men were drawn from non-familial pools. The net result was the creation of sometimes larger and more spatially far-flung networks of associations.

The first half century of printing in the Southern colonies was marked by a succession of failures. The first printer in the region, William Nuthead (c.1655-1696) was an absolute loser in the demographic draw. The details of

Nuthead's life and activity are sparse, but in 1682 he arrived in Jarestown with his wife Dinah and apparently opened shop.[1] Finding himself not wanted, he moved in 1683 to the capital of Maryland, St. Mary's City. He died in 1696, leaving Dinah with two young children, William and Susan.[2] Dinah moved on to Anne Arundel County near Annapolis where she printed for about five months before remarrying and selling her printing equipment to William Bladen, clerk of the Maryland Assembly and, for all practical purposes, a professional public official. Bladen was no printer, but clearly in need of one. Yet it was not until 1700, a full four years after obtaining Nuthead's press, that he was able to secure Thomas Reading from England. Under Bladen's sponsorship, Reading printed until at least 1709 and probably until 1713 when he died. On his death the equipment reverted to Bladen who, once again, had a press but no printer, a situation which did not change before his own death in 1718. The next year Evan Jones, an Annapolis merchant and, like Bladen, a public official, seems to have acquired the Nuthead press.

In 1720, Jones was in the same position in which Bladen had been twenty-five years earlier. He had a press but no printer. That year, however, John Peter Zenger (1697-1746), having just completed an eight year apprenticeship with William Bradford in New York, settled in Kent County,

Maryland. Jones, apparently learning of Zenger's presence from Andrew Bradford in Philadelphia, seems to have struck a deal with Zenger to set up shop. But in 1721 Zenger's wife of one year died, and Zenger returned to New York, leaving Jones, again, with no printer. Jones himself died the following year.

Forty years had elapsed from Nuthead's arrival in Jamestown in 1682 to Jones' death in 1722, yet no printing operation had survived in the Southern colonies. Two of the only three printers involved, Nuthead and Reading, had died before they could train new men. Zenger's failure to stay in Maryland was also a result of a death. Bladen and Jones, too, had died before either could secure printers to carry on the trade. And their inability to secure printers when openings occurred -- a direct consequence of the absence of a sufficiently large pool of trained printers -- in large part explains the retarded growth of the trade in the Southern colonies.

In South Carolina, too, the first printers died within a few years of establishing business. Thomas Whitmarsh and Eleazer Phillips, Jr., both opened shop in Charleston in 1731, Whitmarsh under the auspices of Benjamin Franklin, Phillips, under those of his father, Eleazer, Sr., a Boston bookseller.[3] Phillips died within a year, Whitmarsh within two. Yet here a clear link existed to a pool of trained

printers which, to some extent, countered the effects of death and allowed the trade to continue in the South.[4] When Whitmarsh died, his equipment reverted to Franklin who, by virtue of his associations, was able to fill the vacancy with another employee, Louis Timothy. While Timothy lived until only 1738, he had a wife, Elizabeth, and two sons, Peter (b. ca. 1725) and Charles.[5] On his death, Elizabeth carried on the business until Peter assumed control in 1746. And when Peter died in 1782, the only one of his nine sons to survive, Benjamin Franklin Timothy (1771-1807), continued the business until the nineteenth century.

The experience of the Timothys captures the essential features of the press in the Southern colonies. Grounded on families, the trade lagged behind the larger population because of poor demographic luck. The net result was a low level of growth and a low level of production. Yet the Timothys alone, despite their marginal demographic success, were responsible for almost 90 percent of all Charleston imprints.[6] Indeed, printers in Charleston, Williamsburg, and Annapolis were responsible for nearly 70 percent of all southern colonial imprints.[7] And in Annapolis and Williamsburg, where almost 50 percent of all southern colonial imprints were produced, the experience of the press was much like it was in Charleston.

The leading printer in the Southern colonies, William

Parks (c.1698-1750), was only a relative winner in the demographic draw. He survived but had no sons who survived to carry on his trade. Parks arrived in Annapolis from England late in 1725, a seasoned printer, and began business the following year. In 1730 he opened a second shop in Williamsburg, splitting his time between the two operations until 1737 when he stopped printing in Annapolis and moved permanently to Williamsburg.

After Parks moved to Williamsburg, Annapolis was without a printer until late in 1738, when Jonas Green (1712-1767) opened shop. How Green happened to come to Annapolis can only be surmised, but his arrival may well have stemmed from his -- and Parks' -- association with Benjamin Franklin. Green entered the trade as an apprentice to his father, Timothy Green, in New London, Connecticut. After working a year for his brother, Timothy II, and his uncle, Samuel Kneeland, in Boston, he went on Philadelphia where he worked for both Andrew Bradford and Franklin. In 1737, Franklin became postmaster of Philadelphia, a position which created an association with Parks, postmaster of Williamsburg.[8] Parks' departure from Annapolis left an opening which could only be filled by a trained printer, and Green -- surplus in the New England pool but a scarcity in the South -- was available. While circumstantial at best, these connections, as well as Green's later dealings with

Franklin and particularly his purchases of Poor Richard's Almanac, suggest its probability.

Jonas Green, like most of his New England relatives, was an absolute winner in the demographic draw. He lived and had sons: William (1745-1770), Frederick (1750-1811), and Samuel (1757-1811). While Green's own family contributed the most to the growth of his business and the trade at large, his non-familial association with William Rind (1733-1774) cannot be overlooked. Probably in the late 1740s or early 1750s Green took on Rind, a Williamsburg native, as an apprentice -- both William and Frederick being too young to be of any real help in the shop. The year after Samuel was born, Green and Rind formed a partnership (perhaps a form of insurance for Green in the event of his death) which lasted seven years. By the time the partnership ended in 1765 and Rind returned to Williamsburg, Green's oldest son, William was twenty and nearly ready to join his father in partnership. Jonas Green died in 1767, and his widow, Anne Catherine Green, continued the business. In 1768 she formed a partnership with William, but in 1770 William died. Yet there were still two surviving Green males, Frederick and Samuel, as well as Anne herself. In 1770, Anne and Frederick formed a partnership which lasted until Anne's death in 1775. And in 1777 Frederick entered into partnership with Samuel, then twenty, and the two brothers continued to print

until 1811. Even after this, Frederick's son, Jonas, continued his father's trade.

The career of Jonas Green clearly illustrates the effects of a successful demographic experience -- one which could even absorb the loss of a son and yet produce a increase in the trade. At the same time, Green's experience reveals the tangential, yet profound effect on trade growth of non-familial associations, specifically, Rind. Green needed Rind while his sons grew up, but they were the successors to his firm. Because Green won the demographic draw, Rind had to strike out on his own at some point, which he did in 1765. Annapolis was entering a boom period when Rind left, belying any suggestion that the forces of the marketplace, and specifically hard times, prompted Rind's move.[9] And what is important to remember is that Rind was a trained printer in the pool of printers at risk to enter the trade, a pool which grew in proportion to the number of printers around. The cumulative effect of successful demographic experiences was to produce more printers, not simply by having large families, but also by training others. The dynamics of this process can be seen clearly in Williamsburg, where printers, in the face of bad demographic luck, turned to non-familial men.

When William Parks left Annapolis for Williamsburg in 1737, by all accounts he had only a single journeyman,

Edmund Hall. His only son, William, Jr. (b. 1720) may still have been alive, but he did not survive his father. Parks' only other child, a daughter Susan, married John Shelton, a planter from Hanover County, Virginia. Before his death in 1750, however, Parks trained at least two men. One, James Davis (1721-1785) left Williamsburg for New Bern, North Carolina in 1749. The other, William Hunter, Sr. (d. 1761), remained in Williamsburg and succeeded Parks.

Hunter lived until 1761 and had a son, William, Jr., who lived to practice the trade. But Hunter also had two sisters, Elizabeth and Rosanna. In 1749, Elizabeth married John Holt (1721-1784) who would later enter the trade under the auspices of James Parker, Franklin's New York partner and life-long friend. Hunter, himself, married a Holt. Before Hunter's death, his other sister married Joseph Royle (d. 1766), a former apprentice and foreman of Hunter's shop from 1758 to 1761. When Hunter died in 1761, the future of his son was entrusted to Rosanna and Joseph Royle who ran the business for the benefit of William, Jr. Hunter's association with Franklin was also brought to bear on securing a future in the trade for his young son. From 1761 to 1774, William, Jr. lived in Philadelphia with Franklin, who educated him, and then secured an apprenticeship for him with his former partner David Hall.[10] Thus while death had intervened in the progress of the Hunter trade, the efforts

of family worked to moderate the effects.

In 1765, Joseph Royle became seriously ill, leaving Rosanna to carry on the business by herself. In that year, Rosanna formed a partnership with Alexander Furdie, an immigrant from Scotland. The next year Royle died, leaving Rosanna with the burden of continuing the family trade. John Dixon (d. 1791), a Williamsburg native and apparently an apprentice of Hunter's and Royle's, married Rosanna in 1766, and until 1774, printed in partnership with Furdie. In 1774, William Hunter, Jr. returned from Philadelphia and entered into partnership with Dixon. In 1768 or 1769, John Dixon, Jr. had been born, and so, in 1774, the prospects of the continuation of the Hunter-Dixon family trade seemed good.

The relatively complex sequence of events between the death of William Hunter, Sr. in 1761 and the return of William, Jr. to Williamsburg in 1774 demonstrates not only the impact of death but also, as in so many instances, the personal strategies of those involved to secure a future for the family in the trade. Clearly Rosanna (Hunter) Royle Dixon succeeded in maintaining the business for her nephew, William, Jr. Just as clearly too, Hunter's non-familial association with Benjamin Franklin provided support. In tandem, they offer further evidence of the implicit goal of continuing family in the trade. Strategy and goal would be

partially undone in 1779 when William Hunter, Jr., embraced the loyalist cause. But by then Dixon had a son of his own to provide for, and so took in Thomas Nicolson as a partner much like Jonas Green had taken on William Rind.

The experience of the Hunters is no isolated example of either death or family in the Southern trade. In 1765, the year Joseph Boyle fell ill, William Rind returned to Williamsburg. From 1766 to 1773 he printed alone. On his death in 1773, his widow, Clementine Rind, continued the business for a year before she died in 1774. And there was Alexander Purdie who had met an urgent need of the Hunter family. But Purdie himself had family; whether acquired in Williamsburg or from his homeland of Scotland is unknown. John Clarkson, who began to print with Purdie in 1775, was Purdie's nephew. And when Purdie died in 1779, Clarkson formed a partnership with Augustine Davis (d. 1825) who filled the vacancy created by the uncle's death.

The collective experience of the Williamsburg printers illustrates the fundamental pattern of trade growth in the Southern colonies. Because of bad demographic luck, the press foundered. The death of printers constantly intervened in the progress of family lines and forced surviving tradesmen and tradeswomen to turn to non-familial associations. Much like the Greens in New England, the Hunter-Dixon printers formed familial alliances, printing in

partnership with family members and, through marriage, bringing non-familial associates into the family fold. Yet nowhere in the South did this coincide with gross demographic success. Where printers experienced good demographic luck, such as the Greens in Annapolis or the Davises in New Bern, the trade proceeded to grow and expand in step with the larger population, for with survival came the ability to train new printers. But in general, the growth of the trade in the Southern colonies was stunted.

What separated the collective demographic experience of the press in the Middle colonies from that of its southern counterpart was better luck. In the Middle colonies there were more winners than losers in the demographic draw. But here, family was not synonymous with success or failure. While families were the rule, they co-existed with non-familial, more professionally based trade groups. This particular behavior, which can be termed the "professional style," constitutes an important part of the story of the trade in the Middle colonies.

The existence of both "professional" and "familial" styles of association affected the growth and structure of the trade in the Middle colonies in two ways. First and foremost, the willingness of tradesmen to form professional associations even when family was available gave the trade

an expansive quality that was lacking in the other regions. The basic dynamic of growth was the same here as elsewhere, but when printers trained new men instead of sons, those new men would set up business on their own, often elsewhere. Thus the potential for expansion beyond major centers was enhanced by the fact that there were fewer familial ties keeping new printers in the same locales. The second reason the professional style is an important element of growth is, to a certain extent, a corollary of the first. Because tradesmen did not rely on family to the extent that they did in New England, the trade was more open in the sense that a wider variety of people, with different associations, were involved. Some had families and in the course of their careers displayed the familial style. But others, perhaps in imitation of those who had trained them, pursued careers marked by the professional style.

This is not to say that the professional style did not exist in New England or the Southern colonies, for it did. Yet the overriding feature of the trade in both regions was family and familial associations. In New England and the Southern colonies the course of family growth was the course of trade growth. Similarly, the demographic fortunes of families in the Middle colonies were central to the growth of the trade. Yet the combination of generally good demographic luck and the blend of professional and familial

styles set the Middle colonies apart.

The story of printing in the Middle colonies is the story of the trade in Philadelphia and New York. Fully 87 percent of all printing in the region was done in these two locales. Of the two towns, Philadelphia surpassed New York in production by a ratio of nearly two-to-one. In only three other locales -- Germantown and Lancaster in Pennsylvania, and Wilmington in Delaware -- did production amount to more than 1 percent of all printing in the region before 1783.[11] The fact that Philadelphia and New York dominated printing may explain in part the presence of the professional style. These were the two great seaport towns of the American colonies, and the attendant economic diversity and occupational specialization may well have worked against the clearly more traditional familial style. But at the same time, because both New York and Philadelphia developed within an atmosphere of shifting economic and political tides in the eighteenth century, the fact that trade grew in such a steady and even manner makes the demographic foundations of growth all the more pronounced.[12]

Printing as well as the combination of professional and familial styles began when William Bradford I (1663-1752) immigrated to Philadelphia in 1685 and launched a career that would last nearly fifty years. Bradford, a clear winner in

the demographic draw, had two sons, Andrew (c.1686-1742) and William II (c.1688-1759), but only Andrew followed his father in the trade; William II became a pewterer. William II's son, William III (1724-1791), however, took up the trade, as did his son Thomas (1745-1838).

The Bradford family trade spanned both Philadelphia and New York. After printing for eight years in Philadelphia Bradford moved to New York in 1693.[13] In 1709 William I entered into partnership with Andrew, and the following year Andrew opened shop in Philadelphia, still in partnership with William. In 1712 the partnership was formally dissolved but father and son maintained a working arrangement until at least 1728 and probably beyond.[14] Andrew Bradford had only one son, who died in infancy. To fill the gap he took in as apprentice his nephew, William III, sometime in the early 1730s. In 1739, the two men entered into partnership. Late that year, however, Andrew's wife died, and in 1740 he married Cornelia Smith, a move which strained family relations to the breaking point.[15] Andrew and William dissolved their partnership, and William opened his own shop. Andrew died in 1742, leaving Cornelia with a business she tried to continue, first with Isaiah Warner from 1742 to 1744, and then alone until 1751. But without the benefit of family help, denied her by the rift, her efforts bore little fruit and she finally quit the trade. William III,

meanwhile, continued to print, and in 1766 entered into partnership with his son, Thomas. And when William retired in 1780, Thomas assumed control of the business which he continued until the third decade of the nineteenth century.

In New York, the Bradford trade spawned the Zenger family trade through William I's survival and his willingness to take in non-familial men. The year after Andrew Bradford left New York for Philadelphia William I took in as an apprentice John Peter Zenger. Zenger moved on to Annapolis in 1719, but returned in 1721 and probably worked for Bradford until 1725 when the two men formed a partnership. After a year Zenger opened his own shop, the second in town. While Zenger had five children, he survived long enough to train only one son before his death in 1746. Zenger's widow, Catherine, continued the business for her son, John, printing alone for two years before relinquishing the press to John in 1748. After only three years, however, John died, and the Zenger family disappeared from the trade.

Like William Bradford I, the other major figures in the New York trade all display, in varying degrees, the blend of professional and familial styles characteristic of the Middle colonies trade. William Weyman (d. 1768) had no sons and only one partnership during his twenty year career. Hugh Gaine (1726-1807) and James Rivington (1724-1802) both had sons, but none followed their fathers in the trade. John

Holt (1729-1784) parlayed the two types of associations into a successful career that lasted thirty years. A product of the Hunter-Dixon family in Williamsburg (Holt married William Hunter's sister Elizabeth), and the business of James Parker (1714-1770), Holt printed in partnership with Parker, William Goddard (1740-1817), and his own son, John Hunter Holt (d. 1787). But it is James Parker -- next to William Bradford I responsible for more New York printing than any other man -- who exemplifies the combination of styles as well as the expansive quality of the Middle colonies trade.

Parker began his career in 1726 as an apprentice to William Bradford. In 1733, however, he ran away to Philadelphia where Benjamin Franklin took him in, employed him, and in 1741 set him up in business in New York. Parker married but had only one son, Samuel Franklin Parker (c.1746-1779), but in addition a nephew, Samuel Parker (d.c.1775). While both would enter the trade under Parker's tutelage, most of Parker's business was conducted in concert with other men. There was Franklin, who had given Parker his start and to whom he always remained close. But most were younger tradesmen who Parker trained, employed, or printed with while his son and nephew grew up. From 1745 to 1752 Parker employed Hugh Gaine, and, at the same time trained Franklin's nephew, Benjamin Mecom (1732-c.1776). When Gaine

opened business for himself in 1752, Parker entered into a partnership with William Weyman that lasted until 1759. In 1754, Parker opened two additional shops, one in New Haven, Connecticut, and another in his hometown of Woodbridge, New Jersey. In New Haven, Parker employed Thomas Green and John Holt, and trained William Goddard (1746-1817). In Woodbridge he trained his son. From 1760 to 1762 in New York, Parker printed in partnership with Holt and his nephew worked for Holt. By 1766, Weyman, Gaine, and Holt had all started their own businesses in New York, and Samuel Franklin Parker had assumed the operation of the New York shop. Having closed the New Haven operation in 1764, Parker opened another shop in Burlington, New Jersey in 1765. By then it would appear, his nephew Samuel was old enough to take it on.

Within Parker's myriad ventures is a pattern that illustrates not only the professional and familial styles of trade behavior, but also the impact which this combination had on growth. Parker clearly tried to secure a future in the trade for his son and nephew. Yet in the time before they were old enough to assume the management of a shop, Parker turned to other men -- Gaine, Weyman, and Holt -- to keep his business going and growing. His associations with these men, and Franklin, were all professional, non-familial ties.[16] And the fact that Parker opened additional shops reveals the basic characteristic of the professional style

to expand. With his New York shop in the hands of Weyman, Parker could afford to open the Woodbridge shop. When Weyman set out on his own, Holt was available to take his place. The New Haven shop was originally Franklin's plan, designed for his nephew Meccm. But when Meccm and Franklin's other nephew, James Franklin, Jr., turned it down, Parker took it on.[17] Whether Parker would have opened all these shops without either the pull of associates such as Franklin and the availability of others such as Weyman and Holt, or the push of family is impossible to say. Yet it is precisely this combination which marks the Middle colonies trade.

The presence and importance of the familial style cannot be overlooked for it is as much a part of the story of the trade in the Middle colonies as the professional style. James Adams (c. 1724-1792), the first printer in Delaware, is a case in point, for he survived and had sons who followed him in the trade. Born in Ireland, Adams immigrated to Pennsylvania in 1753, worked for Benjamin Franklin and David Hall, and in 1760 moved to Wilmington and opened shop. Adams married and had four sons and three daughters. His oldest son, Hans, was killed in the American Revolution, but his three other sons -- James, Jr., John, and Samuel -- all entered the trade in partnership in 1788 when their father retired. Yet between the time Adams began to print and the time his sons were old enough to be

of any real help, Adams, like Parker, turned to other young men. The first was Isaac Collins (1746-1816) who Adams took in as apprentice in 1760. When his time was up in 1767, Collins went to Williamsburg where he worked for William Rind, and then to Philadelphia where he worked as a journeyman for William Goddard until 1769, and then with Joseph Crukshank (1746-1839). In 1770, the year James Parker died, Collins moved to Burlington, New Jersey and opened shop. The next year he married Rachel Budd by whom he had five daughters and six sons, all of whom continued in the trade.

A virtually identical experience belonged to Collins' successor apprentice in Wilmington, Shepard Kollock (1750-1839), who began his training in 1766. After serving in the Revolution from 1776 to 1779, Kollock opened shop in Chatham, New Jersey. In 1777 he had married Susan Arnett by whom he had six daughters and two sons. Both sons entered the trade, but so too did Kollock's young brother-in-law, Shelly Arnett. Kollock took in Arnett as an apprentice in 1779, and in 1783, Arnett succeeded to the shop in Chatham when Kollock moved on to New York. Thus two more families entered the trade under the tutelage of James Adams, good demographic luck, and an implicit commitment to maintaining family in the trade.

Family was the rule in Germantown where three

generations of Sower printers dominated the German language press.[18] The first was Christopher I (1694-1758), who immigrated to Pennsylvania from Germany in 1724 with his wife and young son, Christopher II (1721-1791). No trained printer, but a watchmaker by trade, Sower constructed a press and began printing in 1738. Sower I survived to train his son in the trade, who in turn lived to have four sons -- Christopher III (1754-1799), Peter (1759-1785), David (1764-1835), and Samuel (1767-1820) -- all of whom entered the trade. In 1776, Christopher II retired and Christopher III assumed management of the family business, and the next year entered into partnership with his brother Peter. Both Christopher III and Peter chose the loyalist side in the Revolution, a move which drove them from Germantown to Philadelphia in 1777, to New York in 1778, and finally, in 1783, to New Brunswick, Nova Scotia, where Christopher printed until 1799. Peter went to the West Indies where he died in 1785. But the two other Sower brothers both entered the trade after the war; David in Pennsylvania and Samuel in Baltimore, where the Sower family trade continued until the mid-nineteenth century.

In Philadelphia, the major printing center in the Middle colonies, families existed side by side with non-familial operations, and associational styles varied from the totally familial to the exclusively professional.

Henrich Miller (1702-1782), for example, printed with only Samuel Holland (d.c. 1753) from 1751 to 1752, but worked for both Franklin and William Bradford before starting business on his own. Robert Bell (c. 1731-1784), had no partners during his career. Robert Aitken (1735-1802) printed with only one partner in his thirty-five year career, his son, Robert Aitken, Jr. (1767-1823). David Hall (c. 1714-1772), Franklin's partner from 1748 to 1765, had two sons, David, Jr. (c. 1755-1821) and William (d.c. 1827), who followed their father in the trade. And William Sellers (c. 1725-1804), Hall's partner after Franklin, continued in business with the two young Halls after David, Sr.'s death, as did his son, William Sellers, Jr.

The combination of styles and the expansive quality of the Middle colonies trade is nowhere more evident than in the career of Benjamin Franklin. The details of Franklin's life we have seen before, but not in the context of the trade at large, and not in conjunction with other men. Moreover, because Franklin was the leading printer in the Middle colonies -- and, indeed, ranked second only to Bartholomew Green, Sr. in total colonial printing -- his experience is of no small importance. A recasting of Franklin's activity -- in tandem with James Parker's -- illustrates something of the superstructure of the early American press -- the associations and the

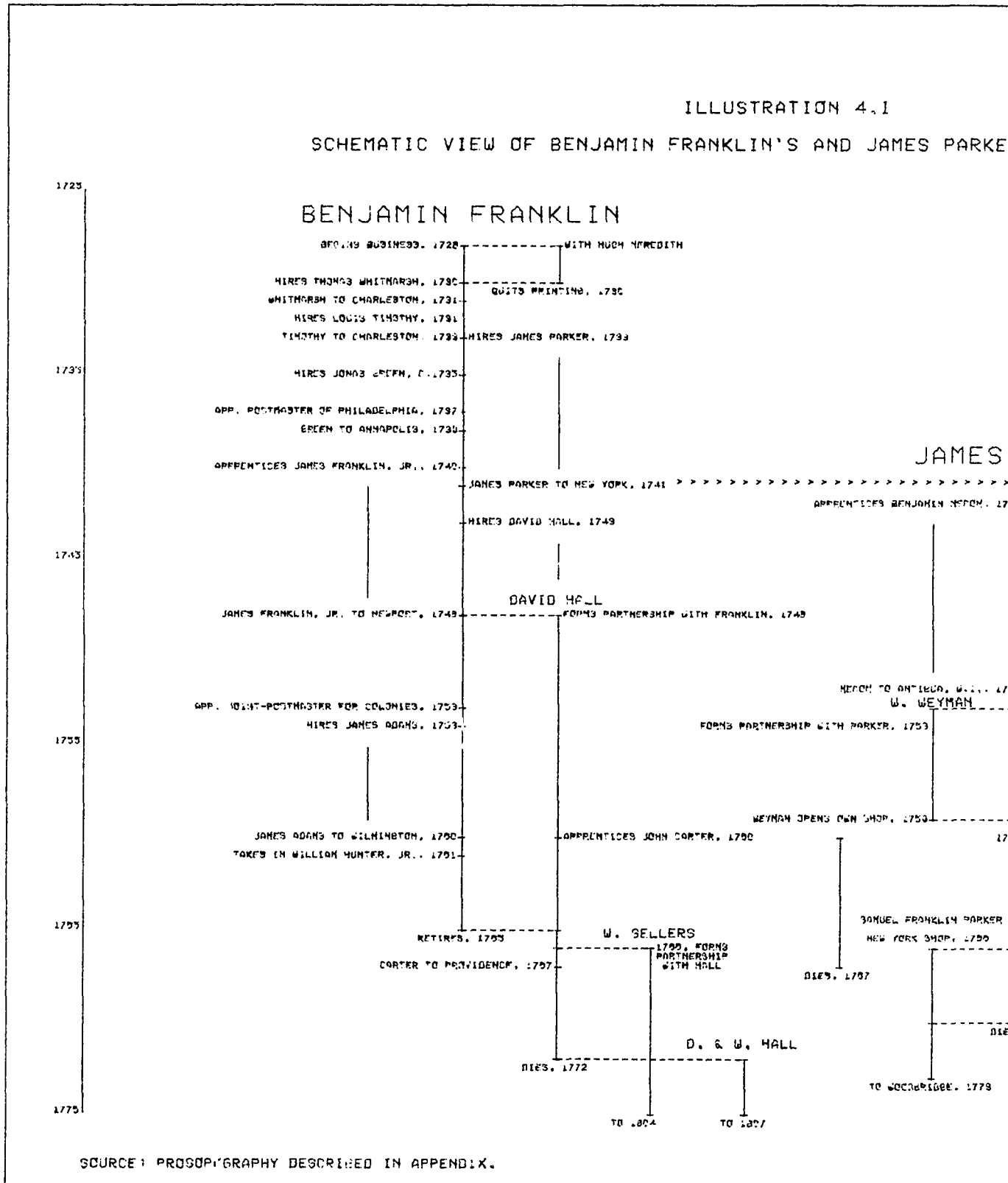
networks they formed.

Illustration 4.1 presents, in chronological form, a schematic view of the major trade associations Franklin and Parker possessed. The solid vertical lines indicate activity in the trade, the dashed horizontal lines working arrangements between individuals. Franklin's "activity line," for example, runs from 1728, when he opened his own shop, to 1765, when he ended his partnership with David Hall and retired from the trade. Two "associational lines" connect Franklin and Hall at the start and end of their partnership. Franklin's and Parker's other associations, as well as major career events, are indicated along these activity lines. In addition, the careers of associates who remained in Philadelphia and New York are also included, although not in as much detail. While abstract, this schematic view allows some of the basic characteristics of the trade to be seen in a way not possible before.

Three major features of the trade are illustrated. The first is the basic dynamic of trade growth -- that surviving printers trained new men and thus increased the pool of printers at risk to print. In turn, Franklin took in and then dispatched elsewhere, Thomas Whitmarsh, Lewis Timothy, James Parker, Jonas Green, James Franklin, Jr., David Hall, and James Adams. Similarly, Parker took in Benjamin Mecom, Hugh Gaine, William Weyman, John Holt, and his son, Samuel

Franklin Parker. Of note is the relatively smooth transition between one man's exit and another's entrance. With Franklin, for example, Parker entered when Timothy left. The same is true for Parker. When Meccm left for Antigua and Gaine opened shop, Parker apprenticed his nephew and formed a partnership with Weyman. With Weyman in the field, Parker opened offices in Woodbridge and New Haven. When Weyman set up shop, Holt was recalled from New Haven. And when Holt began business for himself, Samuel Franklin Parker assumed the management of his father's New York shop. Captured here is the steady, almost inexorable process of trade growth.

Illustration 4.1
 Schematic View of Benjamin Franklin's and
 James Parker's Trade Associations



The second feature to be seen is the contrast between the familial and professional styles as they affected the growth and structure of the trade. Franklin and Parker clearly practiced the professional style, but at the same time never lost sight of family and the continuation of family in the trade. By contrast, David Hall and William Sellers were, after they formed their partnership in 1766, practitioners of the familial style. Hall had two sons and Sellers one, and once in business, no non-familial men entered the trade under their auspices. While survival remained a common denominator in the practice of both styles, the contrast, in terms of growth, is one between an expansive quality and a contractive one. With the familial style, growth came largely with demographic success as the Greens of New England bear witness, for new men were drawn from family pools. With the professional style, the pool of potential tradesmen was not limited by family lines.

Finally, and in a real way, the movement of people along associational lines can be seen. Benjamin Mecom is a case in point. Family of Franklin, Mecom was apprenticed to Parker after Franklin set Parker up in New York. When his apprenticeship ended, Franklin dispatched Mecom to Antigua. Similarly, John Holt entered the trade with Parker at the behest of Franklin. And William Goddard, who was initially trained by Holt at New Haven, later printed with Holt in New

York. Associations made this kind of movement possible. As time progressed, and printers survived, these associations multiplied as new men entered the trade. The net effect was the creation of networks through which flowed not only people, but the printed word itself. These networks, the values tradesmen gave them, and how they actually worked, are the subjects of the chapters that follow.

1. Lawrence C. Wroth, "The St. Mary's City Press: A New Chronology of American Printing," Maryland Historical Magazine, XXXI (1936), 91-109.
2. The oft-cited remarks of Governor George Berkeley of Virginia have done much to engender the perception that the slow development of printing in the Southern colonies was a result of hostile official attitudes. "But, I thank God, there are no free schools nor printing, and I hope we shall not have these hundred years; for learning has brought disobedience, and heresy, and sects into the world, and printing has divulged them, and libels against the best government. God keep us from both!" Berkeley to the Lords of Trade, 1671. William W. Hening, comp., The Statutes at Large: Being a Collection of All the Laws of Virginia . . . (1619-1792) (New York, 1823), II, 517.
3. Douglas C. McMurtrie, A History of Printing in the United States (New York, 1936), II, 308-10, notes the presence in Charleston of a George Webb, and speculates that this may have been the George Webb who had worked for Samuel Keifer in Philadelphia with Franklin.
4. Eleazer Phillips, Sr. (1682-1757) was the last in a line of Boston booksellers and publishers which began with Henry (1656-1680) and Samuel (1662-1720) Phillips. Samuel was Eleazer's Sr.'s uncle and Eleazer was apprenticed to Samuel. In 1703 Eleazer began business. In 1706 he married and had 7 children, but when Eleazer, Jr. died in 1731, only two of his five sons were still alive. There was a cousin, Samuel's son, Gilliam (1695-1770). But Gilliam had married Mary Fanuiel in 1725 and, with her, a substantial fortune, which allowed him to retire from the trade in 1732. Thus on Eleazer, Jr.'s death, there were no Phillip's family members in the pool to replace him.
5. The possible existence of a Charles Timothy is taken from McMurtrie (A History of Printing, 326), although if Charles was involved in the business it was in the capacity of a silent partner, a role that would have been similar to Samuel Green's in New London.
6. The Timothy's were responsible for 410 (88.7%) of the 462 imprints and newspapers printed in Charlestown from 1733 to 1783. The only other major Charleston printer was Robert Wells (1728-1794), who opened shop in 1758. While Wells printed, a very large, if not paramount, part of his business was bookselling. See Robert M. Weir, "The Newspaper Press in the Southern Colonies,"

in Bernard Bailyn and John B. Hench, eds., The Press in the American Revolution (Worcester, 1980), 103-105. See also, Christopher Gould, "Robert Wells, Colonial Charleston Printer," South Carolina Historical Magazine, LXXIX (1978), 23-49.

7. The exact number and proportion of southern colonial imprints (excluding newspapers) by location for the 1682-1783 period is as follows:

Location	No.	Pct.
Williamsburg	468	26.1
Annapolis	417	23.2
Charleston	357	19.9
Baltimore	234	13.0
Savannah	127	7.1
New Bern	116	6.5
Richmond	44	2.5
Totals	1,763	98.3 %

All New Bern, North Carolina imprints are the work of James Davis (1721-1785). The vast majority of the Savannah, Georgia imprints are the work of James Johnston (1738-1808); on a yearly basis, Johnston was responsible for 86.2 percent of all Savannah production. Both men were relative winners in the demographic draw. See Robert N. Elliott, Jr., "James Davis and the Beginnings of the Newspaper in North Carolina," North Carolina Historical Review, XLII (1965), 1-20; Alexander A. Lawrence, James Johnston: Georgia's First Printer (Savannah, 1956), Douglas C. McMurtrie, "Pioneer Printing in Georgia," Georgia Historical Quarterly, XVI (1932), 77-113.

8. Leonard L. Labaree, William B. Wilcox, et al., eds., The Papers of Benjamin Franklin (New Haven, Conn., 1959-), V, 18 (hereafter cited as Franklin Papers).
9. See Edward C. Papenfuss, In Pursuit of Profit: The Annapolis Merchant in the Era of the American Revolution, 1763-1805 (Baltimore, 1975), 10-34.
10. Franklin Papers, IX, 363-364n.
11. The exact number and proportion of imprints (excluding newspapers) by location in the Middle colonies (New York, Pennsylvania, New Jersey, and Delaware) for the 1685-1783 period is as follows:

Location	No.	Pct.
Philadelphia	4,899	55.2
New York	2,828	31.9
Germantown	318	3.6
Lancaster	175	2.0
Wilmington	153	1.7
Trenton, N.J.	88	1.0
Eurlington, N.J.	86	1.0
Woodbridge, N.J.	86	1.0
Totals	8,633	97.4

12. Gary B. Nash, The Urban Crucible: Social Change, Political Consciousness, and the Origins of the American Revolution (Cambridge, Mass., 1980), Chaps. 3-10.
13. Bradford moved to New York following his arrest and subsequent acquittal for printing seditious material. See Alexander J. Wall, Jr., "William Bradford, Colonial Printer -- A Tercentenary Review," Proceedings of the American Antiquarian Society, n.s., LXXIII (1963), 361-384.
14. The working arrangement between the Bradfords involved printing with the dual imprint designation of Andrew Bradford in Philadelphia and William Bradford in New York.
15. Anna Janney LeArrond, Andrew Bradford: Colonial Journalist (Newark, N.J., 1949), 35-37.
16. Parker's often complex dealings with both Weyman and Holt are thoroughly treated by Beverly McAnear, "James Parker versus John Holt," Proceedings of the New Jersey Historical Society, LIX (1941), 77-95, 198-212; and "James Parker versus William Weyman," ibid., LIX (1941), 1-23. Parker was also appointed postmaster of New Haven in 1755, and in 1757, Controller of the postal service, an appointment which made Woodbridge the site of the central post office of the colonies. Franklin Papers, VI, 113-114; VII, 191-198.
17. For Franklin's plans for the New Haven office, see Franklin Papers, V, 441-442.
18. For a good recent discussion of the German language press see Willi Paul Adams, "The Colonial German-language Press and the American Revolution," in Bailyn and Hench, eds., The Press and the American Revolution, 151-228.

CHAPTER FIVE

ASSOCIATIONS

In January 1774 Isaiah Thomas issued the first number of his Royal American Magazine. Like most eighteenth-century works its title page bore the name of its printer. What makes Thomas' magazine special is the distribution it enjoyed. Below Thomas' name were listed sixteen other printers, in locales stretching from Portsmouth, New Hampshire to Charleston, South Carolina, from whom the magazine could be secured.[1] By eighteenth-century standards, this constituted an immense distribution network. How did Thomas assemble it? The most economical explanation would be that he wrote to these, and perhaps other, printers in the colonies offering his magazine for sale. But such an explanation still leaves the question: Why did Thomas choose these sixteen tradesmen and not others? Why Robert Wells in Charleston and not Peter Timothy? Why John Holt and not Hugh Gaine or James Rivington in New York? Why the Bradfords in Philadelphia rather than Hall and Sellers? As Thomas himself informed his readers, "new works, of whatever kind they may be, can hardly be expected to arrive at perfection on a sudden." [2] While referring to the content of his magazine

his words might well be applied to the way in which this network of sellers was compiled. For when we look behind the names we see that a host of associations already existed among these particular tradesmen. It is a crucial clue to the underlying structure of the early American press.

Only twenty-five years old in 1774, entering the trade as an apprentice at the age of six, Thomas had spent virtually his entire life in printing.[3] By 1774 he had worked for or with four of the sixteen printers who were to sell his magazine: Daniel Fowle, Henry Walter Tinges, Robert Wells, and Charles Crouch. Of the remaining twelve, four printed in towns we know Thomas at one time or another visited. On a trip to the Southern colonies in 1767, Thomas stopped at both Providence, where John Carter was printing, and Newport, where Samuel Hall was in business.[4] On his return two years later, Thomas stopped again in Newport where Solomon Southwick had opened shop. Hence, Thomas had probably met Carter, both Halls, and Southwick before 1774. Moreover, Thomas recounted that on his way back to New England he visited "several of the southern colonies," which may well have included Maryland, where Anne Green, another seller, was printing, and possibly even Pennsylvania, where Thomas and William Bradford were in business in Philadelphia.[5]

As far as we know, however, Thomas possessed no direct

connection with eight of the sixteen printers. Of these eight, however, four -- Thomas, Samuel, Timothy, and Anne Green -- were members of the Green family, and a fifth, Ebenezer Watson had printed in partnership with Thomas Green in Hartford. Thomas Green, moreover, had printed with John Holt, another seller, at New Haven. And with the third issue of the magazine, William Goddard was added to the list of sellers; Goddard had served his apprenticeship with both Thomas Green and John Holt in New Haven, and later printed in partnership with Holt in New York. Thus six of the sixteen sellers were associated with each other through their own familial and professional ties. An association with any one of these tradesmen would have brought Thomas an association, albeit once removed, with the others. Yet there is no evidence that Thomas knew any of these tradesmen. Neither was any association of his in turn associated with any of these tradesmen directly. Still, casting our net a little wider reveals a probable link.

Daniel Fowle, who in addition to having employed Thomas was the brother of Thomas' master, Zechariah Fowle, had served his own apprenticeship with Samuel Kneeland and Timothy Green II. Thomas Green had served part of his apprenticeship with Timothy Green II as had Samuel and Timothy Green III. When Fowle was an apprentice, moreover, Jonas Green worked for Samuel Kneeland and Timothy Green II.

Anne Green was Jonas Green's widow, and so Thomas possessed an association with her. Thus, through Fowle, Thomas was linked -- although twice removed -- with all four Green sellers. In some fashion or another, therefore -- directly, at second hand, or at third hand -- all of the particular tradesmen who sold the Royal American Magazine, except the Bradfords, can be linked to Thomas before the magazine appeared.

Can we assume that the tradesmen who sold Thomas' magazine did so because of these pre-existing associations? More to the point, can we assume that Thomas selected these particular printers because of his links to them and the associations they in turn possessed? Several things suggest the validity of such an assumption. For one, there is the fact that, as we saw with Franklin and Parker, associations formed the basis on which people moved in the trade. With Franklin, too, we saw Four Richard's Almanac move along associational lines. Here we seem to be seeing the same thing, and what differences exist seem to be differences of degree, not of kind. For another, we must realize that colonial Americans did not enjoy instantaneous communication or rapid transportation. Both were difficult and slow by modern standards. While this comes as no surprise, it carries important implications for the way we view any potential range of human interaction. If communication was

largely face-to-face -- and what little we know about it suggests that this was probably the case -- then we might well reason that written communication without a common intermediary would be the exception. Moreover, business in this pre-modern society was probably conducted by men who knew each other, again, a suggestion from what very little historians actually know. Certainly no institutional structures existed to minimize risk, thus personal knowledge of one's business associates -- even if once or twice removed -- would have added a degree of insurance to any venture. Both factors probably helped to make business conservative by nature.[6] Applied to the matter at hand, we might well reason that if Thomas' magazine had not followed associational lines it would have been a departure from what historians assume to have been the norm, and something of an innovation. While we might easily accept an innovation by one man, here sixteen were involved.

Associations among printers can be divided into two general types. The first, which can be termed working trade associations, are those formal and quasi-formal trade ties between individuals such as apprenticeships, journeyman employments, and partnerships. Associations between individuals who shared the same status, such as fellow apprentices or employees, also fall into this category. The

second general type of association is familial, a kinship tie between tradesmen. Obviously the two often overlapped but tradesmen held kin ties with each other in the absence of working associations. John Draper, for example, never printed with Samuel Kneeland or Timothy Green II, yet all three were kinsmen.

Each type of association has both practical and conceptual problems. With respect to the latter, in what follows no distinction will be made among kinship associations as to degree or closeness. Consanguineal and affinal relationships are treated equally. Thus a brother and a cousin are categorized in the same way. While admittedly an oversimplification of kinship, only in the broadest way are most kin relationships known. But if the probability that different kin relationships carried with them social bonds of different strengths is obscured, we can still see the dimensions of kinship association within the trade.

Formal trade associations pose a somewhat different problem. The example of Thomas' magazine indicated that considering direct, or "primary," associations was not sufficient to link the sellers to Thomas. Looking at associations once removed, or "secondary" links, revealed a wider and more encompassing web of trade ties. But it was only with the addition of "tertiary" links -- associations

twice removed from Thomas -- that the explicit distribution network of the Royal American Magazine (the sellers) could be construed in associational terms. In sum, associational ties seem to extend to the third degree, that is, to "a-friend-of-a-friend-of-a-friend." In the language of formal network analysis, the concept involves what is called "reachability." [7] The subject itself raises a whole set of theoretical issues.

There is a large literature in sociology, anthropology, and geography dealing with network analysis. [8] As might be expected the central issues are ones of definition (what constitutes a "network") and measurement (size, density, compactness, reachability, etc.). Essentially, a network is defined as the lines of interaction within a "social field." How one defines the actors, the interactions, and the social field is the name of the game. In reality, the whole of a society is the "social field," all it members the actors, and all interactions the lines of the network. But clearly this is beyond our capability to comprehend. We can, however, view the early American press as a partial network within the total network of colonial society. [9] In these terms, we can consider the trade alone to constitute a social field whose boundaries are limited by the very fact of membership. Within this field lie actors (printers) whose interactions hint at the linkages between them. The field can be viewed

as a whole, or it can be viewed from the stance of a single actor in which the field is a complex of individual networks. There is, therefore, a distinction to be made between the network and its networks, reflecting the analytical perspective being employed. The totality of the interaction within the social field, however defined, is the larger network (singular): individuals possess networks (plural) within it. Here we will deal with both.

Figure 5.1 presents a stylized view of how the trade can be seen as both a network and an assemblage of individual networks. Figure 5.1A depicts the "social field" (the trade) and its member-actors (printers). Interaction among the members, defined as working trade associations, is presented in Figure 5.1B, the interaction or links between members being indicated by connecting lines. Each member has an individual network which can include none or all of the other actors in the field. Limiting ourselves to the individual for the moment, we can see the degrees of associational ties. If we consider that the connections depicted in Figure 5.1B are direct, primary, associations, then we can see how secondary and tertiary linkages are formed in Figure 5.1C. Following the course of the linkages from "Ego," we can see that through three primary associations, Ego acquires two secondary and five tertiary associations. The individual network here is "ego-centric,"

and the flow of the network is only one way -- outward from Ego. But all members of Ego's individual network have networks of their own. The mesh of all these is impossible to depict graphically. Yet it is precisely this obvious complexity which network analysis attempts to simplify.

Behind the notions of primary, secondary, and tertiary linkages are, of course, very real associations. Figure 5.2 illustrates the way in which actual working trade associations can be construed in these terms. Depicted here is a simple hypothetical partnership and a partial summary of the associational ties which would be involved. Ego possesses three primary associations: with his master, his partner, and his apprentice; as well as secondary associations with his partner's master and his own master's former apprentice. Ego possesses and by virtue of these, five tertiary associations, one through his master's former apprentice (a partner), and four others through his partner's master (a master, a partner, an apprentice, and a journeyman). Again, it is impossible to depict all the associations involved in even this simple example. But it is the perspective and the vocabulary of network analysis that are the point.

Figure 5.1
Hypothetical Network

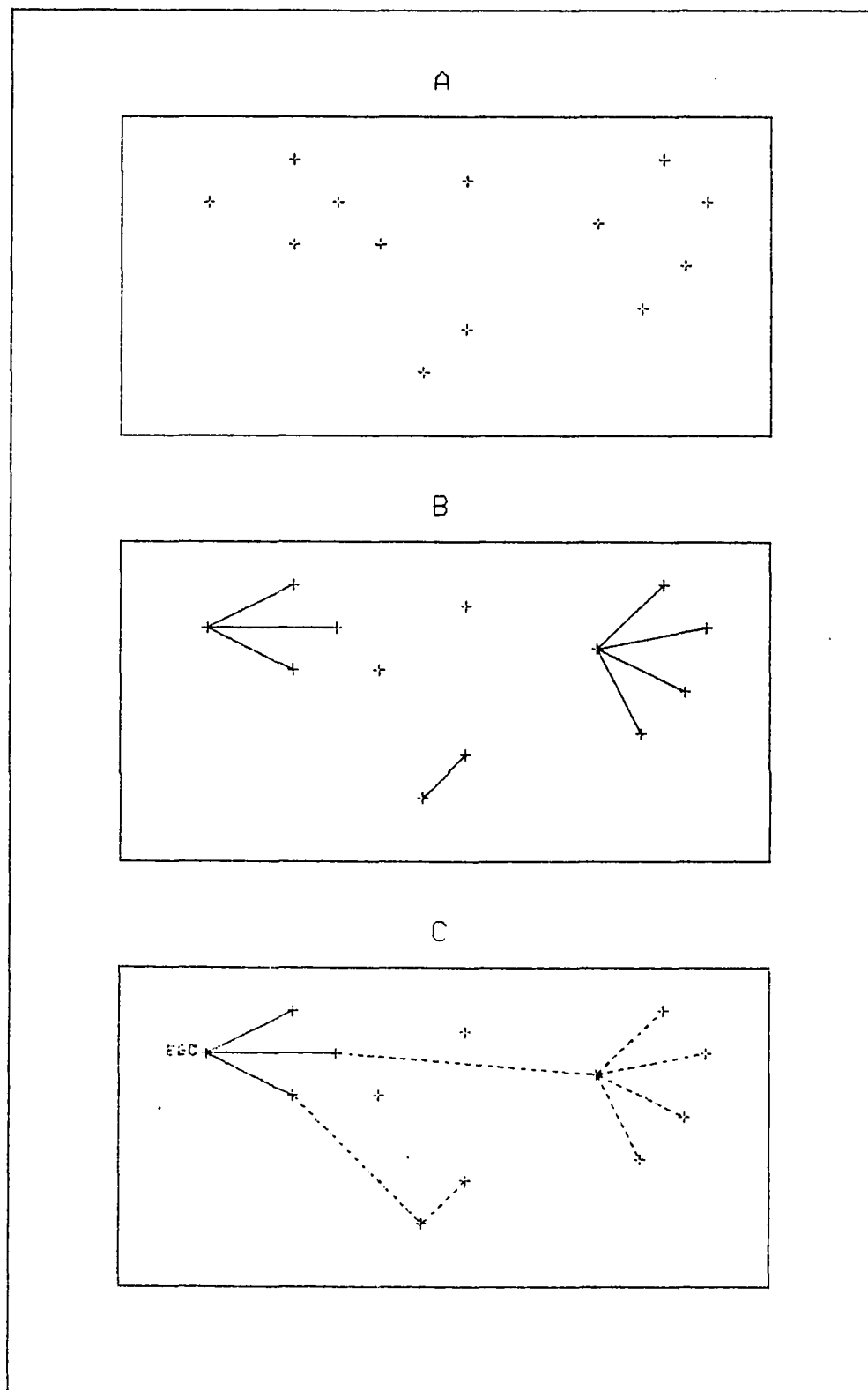
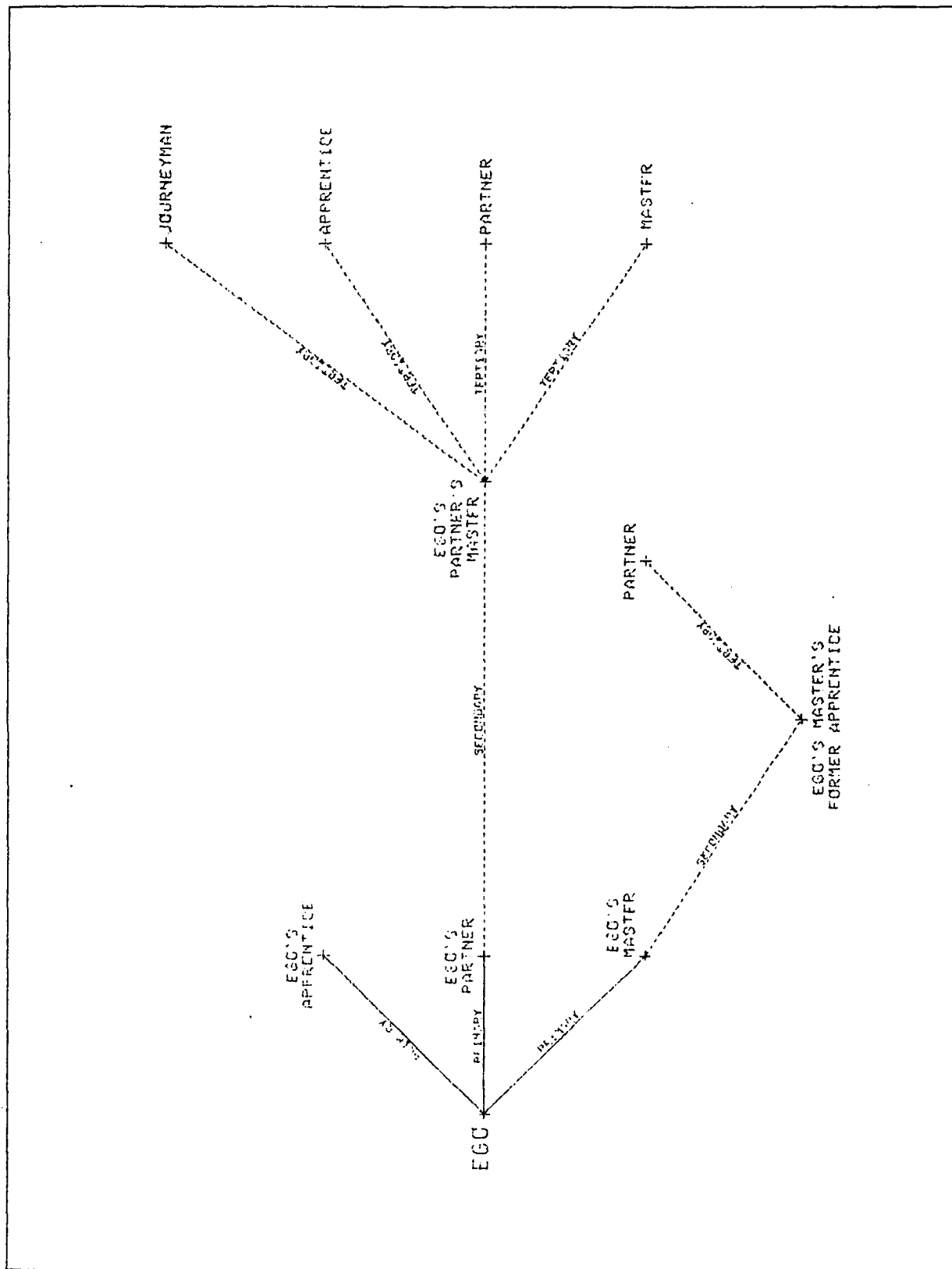


Figure 5.2

Schematic View of Trade Associations in Network Terms



The fundamental feature of association within the early American press was its extraordinary extent. Table 5.1 presents a summary of the mean number of working trade associations for printers with known associations.[10] The average printer in the colonies before 1783 had two or three direct, primary, associates during his career. These were likely to include his own master (if his apprenticeship was completed in the colonies), a partner, and perhaps a journeyman or an apprentice. Secondary associations were more numerous. During a career the average printer could expect to have an average of four discrete secondary associates, that is, associates once removed. The range of full primary to tertiary associations the average printer possessed in the period before 1783 was considerably greater. On the average early American printers acquired eighteen discrete primary, secondary, and tertiary associations with other printers in the course of a career. And the situation changed with time. A printer entering the trade prior to 1750 would acquire an average of twenty-three associates during the course of a career, while one entering the trade after 1751 would acquire only about fifteen.[11] The difference, as we shall see, was a function of trade growth.

Table 5.1
Mean Numbers of Discrete Working Trade Associations
Among Printers, 1639-1783

	1639-1783	1639-1750	1751-1783
Mean No. Primary Associations	2.8	3.8	2.6
Mean No. Secondary Associations	5.2	7.7	4.1
Mean No. Primary, Secondary, and Tertiary Associations	17.6	23.3	14.8
Sample Size	(211)	(69)	(142)

Notes: Figures exclude 54 printers with no known working trade associations. Source: prosopography described in Appendix 1.

It is important to recognize the strengths and weaknesses of these numbers. They are, of course, incomplete. Unrecorded apprenticeships, employments, or even partnerships are lost forever. The numbers, therefore, are minimums. The average printer could have had more associations, but he could not have had less. Time also constitutes a limit. Because more men entered the trade in the later years of the period, associations they may have acquired after 1783 are not reflected in these numbers. Still, the general similarity between the associational experiences of printers who began their careers before 1750 and those who entered the trade after 1751 suggests that the

broad dimensions of association are captured for the entire trade. Keep in mind that the averages presented do not represent the numbers of associations a printer possessed at any given point in time, but rather the number he could expect to acquire in the course of his career. Because associations were cumulative, tradesmen in the later stages of their careers would have more secondary and tertiary associations than they would at the outset of their activity. Longevity in the trade, therefore, led to increased numbers of trade associations, although the ebb and flow of tradesmen kept the absolute numbers of associates any man possessed within finite limits.

The second major type of trade association, kinship, was enjoyed by a substantial minority of tradesmen. In the period from 1639 to 1783, fully 40 percent (106 of 265) of all printers had kin active in the trade during the course of their own careers. The average printer with kin had six kinsmen whose tenure in the trade overlapped with his own.[12] Over time, the numbers changed very little. For printers active in the years from 1639 to 1750, those with kin could expect to have just over six other kin in the trade in their lifetime. After 1750 the number increased slightly, to roughly seven kin. Before 1750, the six kin the average kin-connected printer possessed amounted to 8 percent of all printers. In the later period, the seven kin

represented just under 3 percent of all printers in the colonies, a drop reflecting the diminishing weight of the New England trade and the increasing contribution of the Middle colonies to the larger population of printers.

The number of working trade associations the average printer possessed was limited by size of the trade. Hence, because the number of printers increased over time, associations must be seen in the context of an ever larger trade. The average printer possessed associations with 10.6 percent of all other printers during his career. Of those printers with any associations, the number was 13.3 percent. This level of individual "imbeddedness" in the trade changed substantially in the course of the colonial period, the general trend matching the growing trade and moving toward an increasingly lower level of imbeddedness. Table 5.2 displays the mean number of associates and the degree of individual imbeddedness for printers entering the trade in twenty-year periods. Printers who entered before the second quarter of the eighteenth century were associated with approximately 20 percent of all other printers in the course of their careers. After 1725 the proportion began to drop. By the third quarter of the century the average printer possessed formal trade connections with only about 5 percent of the trade at large.

Table 5.2
 Mean Individual Network Imbeddedness Among Printers,
 By Twenty-Year Cohorts, 1639-1783

Period	Mean No. of Primary, Secondary, and Tertiary Associates	Mean Individual Imbeddedness	
Thru 1683	5.6	20.1	(10)
1684-1703	11.6	22.9	(10)
1704-1723	19.3	20.5	(15)
1724-1743	22.2	16.8	(32)
1744-1763	21.9	13.1	(65)
1764-1783	8.4	5.5	(133)
1639-1783	14.0	10.6	(265)

Notes: Cohorts designate groups of printers entering the trade in specific periods. Sample sizes are parenthetically enclosed. Individual imbeddedness represents the percentage of all possible printers with whom any individual could have been associated in the course of a career.

To some extent, this decline can be accounted for by time itself. The longer any printer stayed in the trade the more associations he would acquire, yet the larger the trade grew, the lower his individual imbeddedness would be. [13] The relationship, however, is even more subtle. The trade in the Middle and Southern colonies was essentially an eighteenth-century phenomenon, and so contributes ever-more

heavily to the overall statistics. But trade activity in both regions was shorter than it was in New England. In the Southern colonies, for example, the shorter stay in the trade was, as we have seen, due to a poor collective demographic experience. The shorter activity, in turn, depressed imbeddedness. As a result, the Southern trade was less imbedded than the trade in either the Middle colonies or New England; and the Middle colonies trade less imbedded than New England.

Table 5.3 presents a summary of associations and individual imbeddedness for printers by region. Among New England printers there was a pronounced tendency to associate within the region. On the average a New England printer enjoyed associations with over 34 percent of all other printers in his region. While his associational network extended into both the Middle and the Southern colonies, these external ties linked him to less than 10 percent of the population of printers in those regions, representing a ratio of intra- to inter-regional imbeddedness of over 4 to 1. In contrast, printers in the Middle colonies possessed inter-regional associations in greater proportion than printers elsewhere. While the average printer here was linked to nearly a quarter of all other printers in his region, the ratio of intra- to inter-regional imbeddedness was 2 to 1. Printers in the

south were linked to a little more than 12 percent of their fellow southern printers and only a slightly smaller proportion of printers in the other two regions.

Table 5.3
Mean Numbers of Associations and
Individual Trade Imbeddedness Among Printers,
By Region, 1639-1783

	New England	Middle Colonies	Southern Colonies	Multiple Regions
Primary	2.9	2.5	1.9	5.0
Secondary	5.3	4.9	2.9	9.8
Full	18.2	17.0	10.4	28.3
Kin	4.9	.8	2.2	2.0
Full Trade Imbeddedness	15.3	12.2	7.7	23.2
New England Imbeddedness	34.4	11.5	8.3	21.7
Middle Cols. Imbeddedness	8.8	24.0	9.9	24.5
Southern Cols. Imbeddedness	7.1	12.6	12.7	15.3
Mean Duration of Activity (Years)	18.6	16.4	13.6	20.8
Sample Size	93	60	36	22

Notes: Sample includes only those printers with known associations. Multiple regional activity includes those tradesmen who printed in more than one region. Of the 22 who did, 5 were active in New England and the Middle colonies,

11 printed in the Middle and Southern colonies, and 6 printed in all three regions. Primary = number of discrete primary associations; Secondary = number of Discrete secondary associations; Full = total number of discrete primary, secondary, and tertiary associations. Imbeddedness reflects the percentage of all other possible printers with whom an individual printer was associated. Source: prosopography described in Appendix 1.

Two things account for these regional differences in associational tendencies. The first is the fundamentally different demographic experiences of the trade in the three regions, a factor which cannot be overstated. Printers in the Southern colonies, again, simply did not survive long enough to acquire associational ties in any number. Printers in New England enjoyed longer careers and hence acquired more associates. The second is the difference in trade styles. The New England trade was familial and, as such, engendered a tendency to stay in New England. Families remained families by staying close to home. There were exceptions, but in general printers in New England remained in the region despite the shortage of printers elsewhere. In the Middle colonies, where the professional style of trade behavior was most pronounced, the tendency to associate with non-familial men both within and without the region gave printers substantially higher degrees of inter-regional imbeddedness. The kind of familial bonds which kept surviving printers close to home in New England did not exist in the Middle colonies to the same degree. The general effect was the acquisition of associations with printers in

other locales. Inter-regional geographic movement within the trade was limited, but what little there was flowed south, and mostly out of the Middle colonies.

The basic regional patterns did not change substantially over time. The general trend in all three areas was toward lower levels of individual imbeddedness, but intra-regional individual imbeddedness continued to show the effects of the particular regional styles, as Table 5.4 reveals.

Table 5.4

Mean Individual Network Imbeddedness Among Printers,
By Twenty-Year Cohorts, By Region, 1639-1783

Period	New England	Middle Colonies	Southern Colonies	Multiple Regions
Thru 1683	74.1 (8)	-	-	-
1684-1703	86.5 (5)	60.1 (2)	-	-
1704-1723	49.5 (8)	63.1 (2)	-	31.3 (2)
1724-1743	44.3 (9)	32.8 (11)	10.7 (7)	46.8 (2)
1744-1763	32.1 (23)	30.1 (16)	14.5 (9)	17.1 (6)
1764-1783	16.0 (40)	12.3 (29)	9.0 (20)	9.9 (12)

Notes: Cohorts designate groups of printers entering the trade in specific periods. Sample sizes are parenthetically enclosed. Individual imbeddedness represents the percentage of all possible printers with whom any individual could have been associated in the course of a career. Sample includes only those printers with known associations. Multiple regional activity includes those tradesmen who printed in more than one region. Imbeddedness reflects the percentage of all other possible printers with whom an individual printer was associated. Source: prosopography described in Appendix 1.

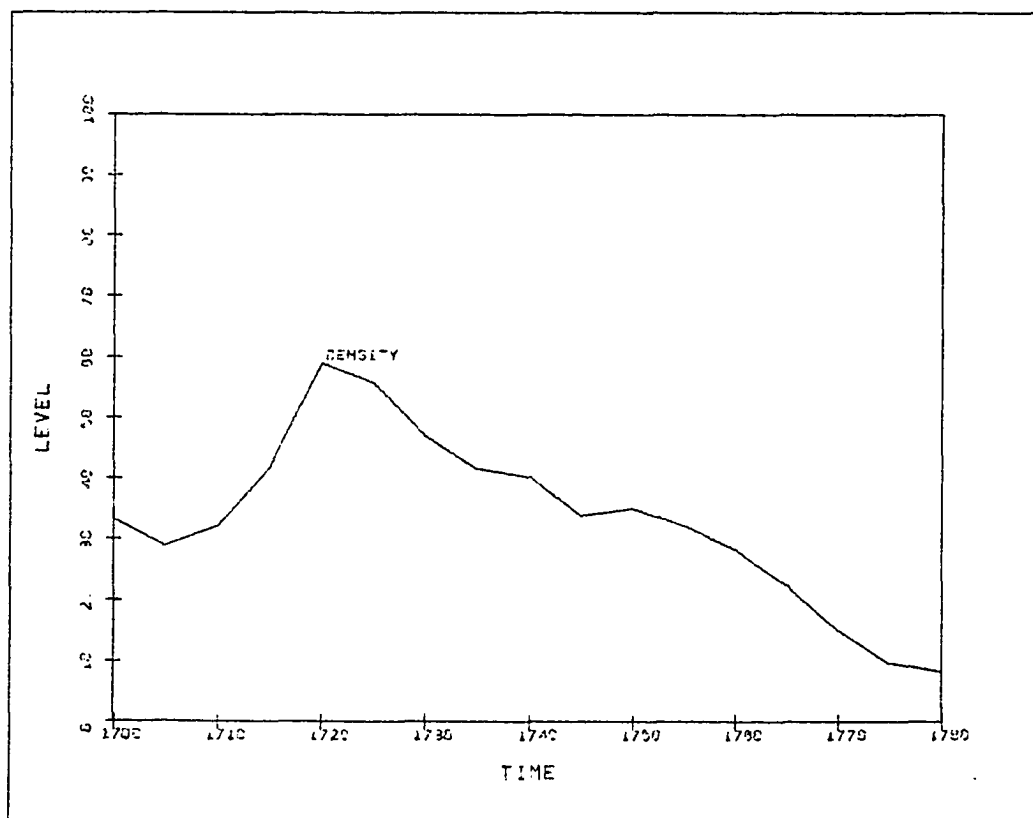
In all three regions a single, basic pattern existed. After the trade was established, intra-regional imbeddedness rose rapidly, peaked, and then declined as more printers entered the trade. The dynamics of this pattern reflect a two-step process. The first, which covered roughly the first generation or two of printing in each region, was tied to the fundamental process of trade growth: surviving printers trained new men. During this initial stage both the trainers and the trained would have high levels of imbeddedness because of the limited number of printers. In the second stage, the continuation of the training process would increase the population of printers and diminish the general level of individual imbeddedness. Very simply, the population of printers would become larger than the number of associates any one printer could conceivably acquire. At this point, the level of individual imbeddedness -- and specifically, its rate of decline -- would become more dependent on the dominant style of trade behavior within the region than on the nature of trade growth. In New England, the dominant familial style kept printers in the region and with this, enhanced the chances of acquiring intra-regional associations. In the Middle colonies, where the professional style was more pronounced, the general effect was to decrease the chances of individual regional ties.

As we shift from the individual to the larger network,

we require a concomitant change in measurement. Individual imbeddedness becomes a matter of network density, that is, the degree to which connections existed among network members at any point in time. More specifically, "density" is the extent to which all possible linkages within the entire network were active at any given time, always realizing that "active" by the definitions adopted says nothing about use but only linkages. A density of zero would indicate a totally inactive network, a density of 100 one in which all possible links were active.[14] To see how connected, or how dense, the trade actually was at particular points in time, we can look at the total network of printers through one, or any number, of time-defined "windows." Figure 5.3 depicts the general course of network density through such windows spaced at five-year intervals from 1700 to 1780.

Figure 5.3

Network Density Among Printers, 1700-1780



Notes: Figures represent network density calculated at 5 year intervals from 1700 to 1780. For measures see note 14. Source: prosopography described in Appendix 1.

Again the basic pattern is clear. Network density rose rapidly in the first two decades of the eighteenth century, peaked at a level where nearly 60 percent of all printers in the American colonies were associated with each other, and then declined steadily to the end of the period. The general shape of the curve approximates what Darrett B. Rutman has suggested would be the essential features of association within new communities. "The settlement process," he has

written, (and for which we can read the growth of the trade) "would be marked by the rapid appearance of a few nodal points and relatively dense networks." [15] Reading printers for nodal points, the analogy becomes clear. Rutran goes on to say, taking his lead from network analysis in sociology, that the decline in density might reflect a diffusion brought on by modernization. The decline in the density of the early American press, however, was fundamentally a function of the size of the trade, which increased as the process of training, working, and printing in association continued.

A general diffusion of individual networks did, of course, accompany the growth of the trade. As the population of printers grew, so too did the number of individual associational networks. Across town, from town to town, from colony to colony, and from region to region, the associations tradesmen acquired formed linkages within the trade. Cumulatively, individual networks formed two major regional clusters, one in New England, the other in Middle colonies, which comprised the skeletal superstructure of the larger trade. The virtually identical levels of intra- and inter-regional imbeddeness in the Southern colonies, in contrast, did not lead to the formation of any clearly defined regional cluster. Each region possessed certain features as we have seen. In New England, individual

networks combined to make the regional network relatively tight-knit, with proportionally few ties to the Middle and Southern colonies. The regional network of the Middle colonies was, in contrast, more permeable, with proportionally more ties to the other regions.

Thusfar, we have presumed that associations were both uniformly positive and active. Clearly this was not inevitably the case. Some associations were not always, or even ever, used. Still others were not positive. Apprentices ran away and partnerships were dissolved. But in general, associations were not undertaken lightly, and a connection, once made, was strong. Recall Franklin's experience with his first partner, Hugh Meredith. We saw then how Franklin continued the association in spite of its detrimental effects. And it is not only Franklin whose experience reveals the strength of professional trade ties. While in the Southern colonies in 1769, Isaiah Thomas proposed a partnership to Adam Boyd, a printer in Wilmington, North Carolina. Boyd more or less politely declined, saying in part that "in Partnerships of any Kind People should know each other's Dispositions and Principles very well before they form that Connection. I do not mean this in any other Light than that We are Strangers to each other and I dare say you would dislike me as soon as I would You." [16]

Boyd forcefully expressed the view that associations were to be made carefully. But as we saw with Franklin, there were different kinds of associations, different kinds of ties. Early American printers rarely said what Boyd did; indeed, they rarely said anything at all about their connections. There is one exception which deserves special note for it reveals not only the strength and range of associations, but also the very fact that connections among tradesmen bound them together. In February 1778, John Holt wrote to William Goddard in answer to a request from Goddard about the advisability of publishing an attack on Franklin.[17] In response, Holt offered his own attack on Franklin and on Franklin's political loyalty. The details of Holt's attack are less important here than the associational basis of both Holt's and Goddard's feelings. Holt, especially, distrusted Franklin as one who always acted for the benefit of himself, his family, and his friends. Moreover, the trade experiences of both Holt and Goddard help to explain not only why Holt was writing to Goddard in the first place, but also why Goddard was contemplating an attack on Franklin in the first place, and why Holt thought Franklin put the interests of family and friends before anything else. All in combination, the story offers a telling view of the values which printers implicitly placed on the associations they had.

In 1778 both Hclt and Goddard had been in the trade for twenty-five years. Hclt had begun his career in 1754 at Woodbridge, New Jersey under the auspices of James Parker at Franklin's behest. From Woodbridge, Hclt went on to manage Parker's printing office at New Haven, an operation Franklin had intended originally for his nephew Benjamin Mecom. But when both Mecom and Franklin's other nephew, James Franklin, Jr., declined the office, Parker took it on. It was also in New Haven that Goddard began his career. Apprenticed to James Parker in 1755, Goddard actually worked for Hclt and Thomas Green at New Haven since Parker remained in Woodbridge. Goddard stayed in New Haven until 1758, when he went to finish his apprenticeship in Parker's New York shop. Holt left New Haven in 1760, also going to New York where he assumed the management of Parker's office, and Holt and Goddard were reunited. Goddard stayed in New York until 1762, when he went to Providence to begin business for himself. Thus from 1755 to 1762, Hclt and Goddard worked together for all but two years.

Holt and Goddard resumed their association briefly in 1765 when Goddard came to New York.[18] Holt had ended his arrangement with Parker in 1762 and during the time Goddard was in New York, he printed with Hclt. In the summer of 1766 Goddard moved to Philadelphia where he set up business and established the Pennsylvania Chronicle. From 1766 to 1775

Goddard was in Philadelphia and Holt in New York, but neither man remained outside the Franklin sphere. Goddard's partners in the Pennsylvania Chronicle, Thomas Wharton and Joseph Galloway, were Franklin associates: indeed Galloway was Franklin's chief political ally in Pennsylvania.[19] Holt remained inside the Franklin web by virtue of a running battle over debts with his old mentor Parker, perhaps Franklin's most trusted trade tie next to David Hall. Both associations, Holt's and Parker's and Goddard's and Galloway's, erupted in all-out fights of which Franklin was always and consistently aware.[20] The Holt-Parker imbroglio continued even after Parker's death in 1770. Goddard's and Galloway's, which involved money and politics, spilled over intermittently into public view and ended only when Goddard left Philadelphia for Baltimore in 1775.

On another front, the post office, Goddard felt the Franklin touch directly, and it was probably this that prompted him to attack Franklin himself. Franklin had controlled the postal system since 1753, dealing out postmasterships to friends and associates, and with them a competitive edge in the trade. In 1774 Goddard began to organize a "constitutional post office" which would supplant the existing British system. After a year of travelling, establishing contacts, and setting up routes, Goddard took his scheme to the Continental Congress for sanction, only to

be rebuffed, largely as a result of Galloway's efforts.[21] The Second Continental Congress adopted the system but appointed Franklin, not Goddard, postmaster. Nor was Goddard, for all his work, awarded even the second-ranking position of controller. Franklin gave this to his son-in-law, Richard Bache, and the rather menial post of inspector to Goddard.[22] For over two decades, therefore, Goddard had worked for, competed with, and fought against Franklin's relatives, friends, and associates both in and out of printing. He had learned the power of the Franklin sphere and could certainly feel embittered.

Holt had survived his associations with the Franklin sphere relatively unscathed. But Holt still mistrusted Franklin. Yet for every reason he gave to justify Goddard's attack, he offered another why the attack would be unwise. One of the latter involved a brush Goddard had with the Whig Club of Baltimore over a supposedly ironical piece Goddard had published in the Maryland Journal. [23] Holt reported that his and Goddard's "friends" thought the piece open to more than one interpretation. The substance of the argument is less important than the fact that Goddard's and Holt's associations, their "friends, were involved. And among the friends were Thomas Green, with whom both Holt and Goddard had worked twenty years before, and Eleazer Oswald, who had married Holt's daughter and with whom Goddard would later

form a partnership.

In closing, Holt expressed reluctance at becoming involved directly in Goddard's attack, and he went to great pains to tell Goddard not to implicate him. "If it be supposed, Holt wrote, "that I have had the least Share or Concern in, or even been privy to your Attack . . . it will weaken the Effects of it, and look like a combination." Yet at the same time that Holt was telling Goddard not to mention his name, he revealed what bound him to Goddard. "Your long Residence in my Family, your Connection with me, and the common Concern we have had in many Matters of a publick Nature, may naturally be supposed to have given you a personal Knowledge of most of the Matters relating to me that it will be worth your while to mention." [24] Here, in terms almost as blunt as Boyd's, was a statement of what bound these printers together and moved them to act. Family and friends. These were the principal bonds among eighteenth-century tradesmen, ones which stood above "Matters of a publick Nature."

The values Holt expressed about associations and their strength were very much like Franklin's of a half-century before. Trade associations were to be formed with care for they ranked second only to family ties in importance. Below these, at least to Holt, came politics. What Holt, Franklin,

and Boyd said gives substance to the associations we have seen in the trade at large. Families bound tradesmen, and where families were most pronounced, as in New England, the trade was most self-contained. Where professional ties -- connections -- were dominant, as in the Middle colonies, the trade was most diffuse. Yet everywhere tradesmen possessed associations in no small number. The longer they survived in the trade, the more they accumulated. And it appears that tradesmen used their associations. Clearly Goddard used his for advice and counsel. Isaiah Thomas, too, undoubtedly used his associates in arranging the distribution of his Royal American Magazine, three of whom it will be recalled, were Thomas Green, John Holt, and William Goddard. If Thomas' magazine is any guide, we can expect that printed works followed network lines in the same way that men and friendships did.

1. The Royal American Magazine (Boston, 1774) was sold by Daniel Fowle (Portsmouth, New Hampshire), Henry Walter Tinges (Newburyport, Massachusetts), Samuel and Ebenezer Hall (Salem), John Carter (Providence, Rhode Island), Solomon Southwick (Newport), Ebenezer Watson (Hartford, Connecticut), Thomas and Samuel Green (New Haven), Timothy Green (New London), John Holt (New York), Thomas and William Bradford (Philadelphia), Anne Green (Annapolis, Maryland), Robert Wells and Charles Crouch (Charleston, South Carolina). With the third issue in March 1774, the name of William Goddard (Baltimore) was added. Thomas continued the magazine until June when he sold it to Joseph Greeleaf, after which the imprint read simply "Printed and Sold at GREELEAF'S Printing-Office.
2. Royal American Magazine, No. 1 (January, 1774), iii (American Antiquarian Society copy).
3. The details of Thomas' life are drawn mainly from his own The History of Printing in America, 2nd., edn., Marcus A. McCrison, ed. (1874; New York, 1972), 154-170; and Isaiah Thomas, Three Autobiographical Fragments (Worcester, Mass., 1972).
4. Samuel (1740-1807) and Ebenezer (1749-1776) Hall were brothers and are treated together. Both were nephews of Daniel Fowle, and Thomas' master, Zechariah Fowle. In the absence of a personal acquaintance between Thomas and the Halls, the kin connection may well have taken its place.
5. Thomas, History of Printing, 163.
6. Thomas C. Cochran, Business in American Life: A History (New York, 1972), esp., 19, 21-22; Alfred D. Chandler, Jr., The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977), 15-48, esp., 17-19. See also, Cochran, "Toward a Useful Model of Social Change," in George Rogers Taylor and Lucius F. Ellsworth, eds., Approaches to American Economic History (Charlottesville, Va., 1971), 50-62.
7. Norman E. Whitter, Jr. and Alvin W. Wolfe, "Network Analysis," in John J. Honigmann, ed., Handbook of Social and Cultural Anthropology (Chicago, 1973), 717-746. Tertiary or twice-removed associations are generally seen as the limits of reachability. Linkages of greater degree do not seem to be operative.
8. The only general introduction to network analysis by a

historian is Darrett B. Rutman, "Community Study," Historical Methods XIII (1980), 29-41; esp., "Appendix," 37-39. Among the more useful works are Peter Haggett and Richard J. Chorley, Network Analysis in Geography (London, 1969); Whitten and Wolfe, "Network Analysis"; and Jeremy Poussevain and J. Clyde Mitchell, eds., Network Analysis: Studies in Human Interaction (The Hague, 1973).

9. These particular defining characteristics are adopted from Alvin W. Wolfe, "On Structural Comparisons of Networks," Canadian Review of Sociology and Anthropology IV (1970), 226-244. For a condensation, see Whitten and Wolfe, "Network Analysis," 724, 735.
10. Fully 20% (54 of 265) printers had no known working trade associations. Associations and associates are used synonymously throughout. This usage obscures different types of working trade ties (for example, an apprenticeship and a partnership) with the same individual. The focus of the discussion, however, is the range of different associates individuals possessed.
11. In one sense, these averages are conservative. Using a C Mean, a measure of central tendency for individuals within units, the average number of associations for printers is as follows:

	C Mean
Primary	4.8
Secondary	11.6
Full	33.6

Full indicates the full range of primary, secondary, and tertiary associates. See Daniel Scott Smith, "Averages for Units and Averages for Individuals within Units: A Note," Journal of Family History, IV (1979), 84-86.

12. The C Mean of kin for printers in the 1639-1783 period was 12.7, again illustrating the essentially conservative nature of the numbers presented.
13. The correlation between individual imbeddedness in the trade (the percentage of all printers active in the course of any tradesman's career with whom he could have been associated) and duration of activity in the trade to 1783 was .61 ($r^2 = .37$, $F = 157.5$, $Sign. = .01$).
14. Density is computed as $(N_a / N_t) \times 100$, where N_a is the

number of active linkages within the network, and N_t the number of potential linkages. N_t is itself computed as $(N/2) \times (N-1)$ where N is the size (the population) of the network. For a fuller discussion of this and other measures see Rutman, "Community Study," Appendix, 37-39; and Rudo Niemeijer, "Some Applications of the Notion of Density to Network Analysis," in Eoissevian and Mitchell, eds., Network Analysis, 45-64.

15. Rutman, "Community Study," 34.
16. Adam Boyd to Isaiah Thomas, Dec. 2, 1769, Isaiah Thomas Papers, Box 1, Folder 3, American Antiquarian Society, Worcester.
17. For a fuller discussion see Charles Wetherell, "'For These or Such Like Reasons:' John Holt's nattack on Benjamin Franklin," Proceedings of the American Antiquarian Society, LXXXIX (1978), 251-275.
18. Goddard's only competition in Rhode Island was from a Franklin family business, headed intitally by Ann Franklin (1695-1763), and then by Samuel Hall (1740-1780) who married Ann Franklin's daughter, Sarah, in 1763, and continued to print in Newport until 1768.
19. Thomas Wharton (1735-1778) and Joseph Galloway (1730-1803). On Franklin's relationship with Galloway, see Benjamin H. Newcomb, Franklin and Galloway: A Political Partnership (New Haven, 1972).
20. Holt's dispute with Parker is thoroughly treated in Beverly McAnear, "James Parker versus John Holt," Proceedings of the New Jersey Historical Society, LIX (1941), 77-95, 198-212. Goddard's dispute with Wharton and Galloway is treated in Ward L. Miner, William Goddard, Newspaperman (Durham, N.C., 1962), 65-103, and in Goddard, The Partnership: or the History of the Rise and Progress of the Pennsylvania Chronicle (Philadelphia, 1770). Another attack on Galloway by Goddard is A True and Faithful Narrative (Philadelphia, 1771), to which Franklin's response was: "I cast my eye over Goddard's attack against our Friend Mr. Galloway and lit my Fire with it. I think such feeble malicious Attacks cannot hurt him." Franklin to William Franklin, Jan. 30, 1772, Franklin Papers, XIX, 51.
21. Goddard's activities with the post office are well treated in Miner, William Goddard, 111-136.
22. Richard Bache (1737-1814) married Franklin's daughter

Sarah (1747-1808).

23. See, Miner, William Goddard, 150-162.
24. Wetherell, "'For These or Such Like Reasons'," 274.

CHAPTER SIX

DIFFUSION

The diffusion of printed works in early America generally followed associational lines. That movement, however, was extremely limited. Less than ten percent of all colonial imprints were ever reprinted, and fewer still were printed in more than one place. Both the nature and extent of trade networks worked to minimize the intra- and inter-regional flow of the printed word. The nature of the diffusion process itself augmented the tendencies of trade networks to limit movement. All in combination reflected and reinforced an innate provincialism of the early American press.

Two basic questions must be confronted before we can assess the diffusion of the printed word. The first concerns the extent to which we might expect works to flow along network lines, the second, how likely we are to see that flow.

Both the general nature of trade growth and the extent of individual networks would logically affect the diffusion of printed works. As more and more printers entered the trade, more and more was printed. Yet as production

increased, both the overall level of network density and the level of individual network imbeddedness declined. Simply put, as the number of works which conceivably could be moved through networks increased, the capacity of individual networks to act as conduits decreased. As time progressed, both the absolute size of networks and the proportion of the larger trade which networks represented declined. Thus we might expect that the movement of printed works along network lines would be proportionally greater earlier, when networks were larger and tradesmen more imbedded, even though less was being printed than in the later years.

Regional differences in the trade, and particularly regional differences in individual imbeddedness, would also affect movement. In New England inter-regional network imbeddedness was lower than it was in the Middle colonies. Consequently, we ought to expect fewer works to flow out of New England than out of the Middle colonies, where inter-regional imbeddedness was higher. Similarly, in all regions, but especially in New England where intra-regional imbeddedness was highest, we can expect the flow of printed works to be low for the simple reason that it logically would serve no purpose. A printer in Boston would not re-print the work of an associate if that associate were across the street. In short, the efficacy of using networks must be considered.

These are important concerns which cannot be taken lightly. We cannot expect any movement of works through networks if neither the networks existed nor no useful purpose could be served. An additional concern involves our ability to see movement using the imprints of the period. If we approach the matter from the vantage point of printers and their imprints we must deal with a very limited sample. Roughly 90 percent carry the name of a printer.[1] Only about 13 percent, or just under 3,200 imprints, however, bear the names of two or more printers. And of these, only 121 (3.8 percent) identify printers working in two or more locales. Another approach is to examine specific works which were printed in more than one place, or at different times. If particular authors or pieces enjoyed more than local distribution, we might expect that the printers of these works would be connected. Here the number of works involved is larger, just over 1,000, but still a fraction of the total production of the early American press.

Finally, there is the nature of the diffusion process itself to consider. Like networks, diffusion has been the subject of much work, especially in geography.[2] Fundamentally, diffusion is the movement of anything -- an idea, an innovation -- through time and space. While conceptually simple, the process of diffusion -- like the interaction of networks -- is complex. Geographers

discriminate between two basic types of diffusion. One is termed "expansion diffusion" and is the process whereby a carrier transmits something, an idea, for example, to another person directly. Through time, the number of persons who know about the idea increases. Spatially, neither the tellers nor the receivers move, and the idea diffuses directly from one person to another. The second general type is termed "relocation diffusion" and involves the movement of the carrier himself. Migration is a case in point. Within these two general types of diffusion are two sub-types of processes. The first, "contagious diffusion," is similar to expansion diffusion, but is generally faster, and the power of the diffusion decreases dramatically with distance. The second sub-type, "hierarchical diffusion," is a form of relocation diffusion. The essential difference between the two is that hierarchical diffusion generally adheres to some existing structure within society, such as the size of towns or the routes of trade. In early America, for example, goods from London would probably reach New Haven, Connecticut through Boston in a hierarchical, stepped manner rather than directly.

Diffusion is rarely of a single type. More often than not it will possess features of several processes, all of which can change in time as well. In the initial stages of diffusion, for example, relocation diffusion is generally

more evident than expansion diffusion. The reverse is true in later stages. Considering the press itself in these terms the point becomes clear. The trade grew as the number of printers grew. Spatially, in the early years of trade growth, relocation, and more specifically hierarchical, diffusion was as evident as expansion diffusion. Boston, New York, Philadelphia, Williamsburg, and Charleston all had presses before New Haven, Connecticut, Burlington, New Jersey, or New Bern, North Carolina. While this comes as no surprise, these being the centers of government and commerce in colonial America, it is important to remember. The growth of the trade, however, was consistently marked by expansion diffusion as printers trained new men. In New England, especially, new men stayed within the region, and printing diffused in an "expansive" manner.

Two additional aspects of diffusion warrant note. The first is that in all diffusion "carriers" are involved. Ideas or innovations do not spread by themselves. They are carried. While painfully simple -- as simple as the idea of diffusion itself -- it is still a fundamental point with important implications. To have any work printed in two places requires not only that there be printers in both places, but that the work be known to both printers. And to have the work known to each printer by the definitions adopted here requires a trade tie. The second is that all

diffusion can be interrupted, slowed, or even stopped by barriers. The nature of barriers affecting diffusion are not simply physical, but cultural, political, and psychological as well.

In conjunction with the nature of trade networks, the essential features of diffusion provide a context in which the movement of printed works can be placed. The three features of this context, however, are all negative in the sense they individually reduce the likelihood that any substantial diffusion of printed works occurred. First, as has been said, trade networks by virtue of their size (and more specifically the network imbeddedness which they represented) would minimize the chances for works to be moved across network lines as time progressed, for individual imbeddedness declined with time. Second, any diffusion would assume the characteristics of "hierarchical diffusion" in the early stages of trade growth in greater proportion than "expansion diffusion." Again, the reverse would be more the case in the later years of the period. Third, the ability of the trade to move works across space would be affected by a variety of barriers. The principal physical barrier, distance, would be most pronounced in the later years of the period when network imbeddedness was low and associational ties limited. Political barriers would in general always work to block movement. Massachusetts laws would not

logically be re-printed in New York or Philadelphia. Because government printing constituted roughly a third of all colonial production, the political barrier would be pronounced.[3]

Cultural barriers present different problems and barriers of different strengths. One cultural barrier would be linguistic, which in colonial America reduces to the German language press of the Middle colonies. German language works would not be likely to move into New England or the Southern colonies, although we might expect English language works to be reprinted by German printers, and this was indeed the case.[4] Another cultural barrier would be religious, and here the problem is more complex. Clearly much of the product of the press, particularly in the seventeenth and early eighteenth centuries, was of a religious nature, although the subjects of individual works varied. Classifying the product of the press by content is patently beyond the scope of this study, but something must be said. In general, we would not expect religious works, and in particular New England religious works, to enjoy more than a regional distribution. Like government printing, local or regional religious publication would not be likely to flow across regional lines even though the capacity to do this was greatest at the time these works constituted the highest proportion of printing. Indeed, the smaller the

trade the more patently local and provincial the product of the press would be.

In tandem then, the nature and changing character of both networks and diffusion would logically work to create a situation in which more printers would not necessarily make for greater chances of works being moved across provincial lines; indeed, quite the reverse. The fewer printers there were, the higher both total trade and individual network imbeddedness, and the greater the spatial separation among connected printers. As the size of the trade grew and more was printed, the chances of more different things being printed would increase. But at the same time the ability of printers to move works across greater distance would decrease because of declining imbeddedness and spatial separation of network printers, which would reduce the efficacy of using networks. The net effect would be to maintain and reinforce the inherent provincial nature of both tradesmen and their printing.

There is, however, a missing link, and what can be termed a "wildcard" factor. The missing link is the colonial newspaper, the number of which increased -- like all printing -- in proportion to the number of printers in the trade. Newspapers, published more frequently and throughout the period marked by massive reprinting of both colonial and British material certainly served as a vehicle for the

diffusion of ideas.[5] Undoubtedly though, they mirrored the patterns of the book trade for they were produced by the same printers. But the content of newspapers, like the content of imprints, lies outside the scope of this study and will not be assessed. The "wildcard" factor is, of course, the major event -- The Great Awakening or the Revolution. Diffusion related to these can be considered special, examples of rapid, "contagious diffusion." Yet the number of works which were reprinted reveals involves only a handful of authors whose works directly relate to the event. Of all authors whose works were reprinted more than five times, excluding the ubiquitous "Anonymous," only the Continental Congress and Thomas Paine rank above authors whose works were patently not "wildcard" or event-related. Next to Paine, for example, the works of Issac Watts, Cotton Mather, and Increase Mather, were reprinted more often than any other author. Even the voice of the Great Awakening, George Whitefield, was reprinted less often than these writers. While Paine, through his Common Sense and The Crisis, enjoyed a wide printing and a wide distribution, he was, quite literally, alone.[6]

The actual record of printing reveals the extraordinarily limited nature of diffusion in the colonial period. But although limited, what little movement there was

clearly reflects the associational nature of the trade. The mesh of trade and what can be termed "imprint associations" can be measured much like network density. For one or any number of specific works, the degree of association among the printers involved in its production can be gauged using an "index of association," a measure analogous to individual network imbeddedness. Treating a single work or imprint as a network in itself, the extent to which that "imprint network" mirrored the networks of its printers can be seen. If all printers listed on a particular imprint were associated with one another, for example, that work would have an "associational index" of 1.0; if they shared no trade or kinship ties, the index would be 0. For fully 91 percent of all works bearing the names of two or more printers, all printers explicitly involved in the printing and selling of the work were associated with each other in some way. In only 4.0 percent of the cases were printers not network members. Clearly the high degree of association reflects the presence of partnerships, but partnerships are only part of the picture. Limiting the count to the 121 imprints which involved printers in more than one location, the degree of association drops slightly, but still reflects the fact that trade ties -- networks -- were used. Fully 62 percent (75 of 121) of those imprints involving two or more printers in two or more places possessed network ties at the

time the work was printed.

The diffusion of works which were reprinted is more instructive for the simple reason that more imprints are involved. Between 1639 and 1783 there were 1,031 instances in which specific works were reprinted. This sometimes marked the appearance of a new edition, but in general a work was simply printed again. Some 62.6 percent (645) of these instances involved only a single reprinting, another 22.0 percent (227) three, and 15.4 percent (159) four or more. The average length of time between printings was two to three years, implicitly suggesting the success of the work in the marketplace. Fully 43.5 percent (449) of these reprinted works were printed in one place, but 56.5 (582) percent involved printings in two or more places. As such, the associational ties among the printers are of some importance.

Of reprinted works, 296 (28.6 percent) involved only one or an unknown printer, leaving 736 instances in which associational ties can be measured. Again, the overriding feature of diffusion from this perspective is its associational character. Works that were reprinted were done so by network members more often than they were by printers who possessed no working or kinship ties. From 1668, when the first colonial work was reprinted, through 1763, reprintings involved network members more than eight out of

every ten times. Table 6.1 presents a summary of the associational character of those cases for the eighteenth century in twenty year periods. At no time did the proportion of reprinted works involving unconnected printers exceed the proportion involving associated, network printers. And only in the twenty years from 1764 to 1783 did the average index of association fall below .600. Thus for most of most of the colonial period, on the average, more than sixty percent of those printers involved in the printing and reprinting of any work possessed trade ties. Clearly it would seem, when the printed word moved, it moved along network lines.

Table 6.1
 Characteristics of Reprinted Works,
 By Twenty-Year Periods, 1639-1783

	Thru 1723	1724-43	1744-63	1764-83
Number	59	83	149	453
Mean Set Size	2.5	2.6	2.7	3.1
Pct. 1 Loc.	78.4	55.4	29.5	24.9
Pct. 2+ Loc.	21.6	44.6	70.5	75.1
Index of Assoc.	.772	.660	.725	.393
Pct. with 0 Assocs.	9.8	18.1	9.4	32.0
Pct. with Assocs.	91.2	81.8	91.6	68.0

Notes: Number is the number of cases; Mean Set Size is the mean number of separate printings (imprints) comprising the case; Pct 1 Loc. represents the percentage of cases involving only 1 location; Pct 2+ Loc. represents the percentage of cases involving printings in 2 or more locations; Index of Association represents the mean index of association which, itself, is the ratio of the actual number of trade ties among all printers involved in all printings to the maximum possible number of trade ties; Pct. 0 Assocs. is the percentage of cases in which there were no trade ties between the printers involved; Pct with Assocs. is the percentage of cases where trade ties existed among printers.

The regional character of diffusion reflects both the general features of regional imbeddedness and the impact of events. Table 6.2 displays the distribution of reprinted works by region in twenty-year periods. Intra-regional reprintings predominated, but this is to be expected given the consistently higher ratio of intra- to inter-regional imbeddedness among printers. Inter-regional diffusion was most pronounced between New England and the Middle colonies. While the proportion of reprintings involving these two regions was higher than what might have been expected given the respective levels of inter-regional imbeddedness, it mirrors the network ties between printers in both regions, as well as the relatively short distance between the two. The impact of events is clearly evident in the inter-regional reprintings for the years 1724 to 1743 and 1764 to 1783, periods encompassing the Great Awakening and the Revolution. It is clearly of note that of the authors reprinted in more than one region in the period from 1724 to 1743, George Whitefield ranked first, followed by Alexander Gardner (1685-1746), an opponent of the Awakening. Of equal popularity with Gardner, however, was Issac Watts, whose hymnals tied him with Whitefield for the most reprints in the period from 1744 to 1763; and behind only the Continental Congress and Thomas Paine in the last twenty years of the colonial period. And in the era of the

Revolution, next to these three, Thomas Dilworth, the author of several editions of A Guide to the English Tongue, enjoyed the most reprintings.

Table 6.2
Regional Distribution of Reprinted Works,
By Twenty-Year Periods, 1639-1783

	Thru 1723		1724-1743		1744-1763		1764-1783	
	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.
N.E.	92.2	(47)	60.2	(50)	29.5	(44)	32.7	(148)
M.C.	3.9	(2)	8.4	(7)	31.5	(42)	24.2	(110)
S.C.	-	-	-	-	-	-	.7	(3)
N.E.-M.C.	3.9	(2)	24.1	(20)	37.6	(56)	31.6	(143)
M.C.-S.C.	-	-	2.4	(2)	.7	(1)	3.8	(17)
N.E.-S.C.	-	-	2.4	(2)	.7	(1)	2.6	(12)
All	-	-	2.4	(2)	-	-	4.4	(20)
Totals	100.	(51)	100.	(83)	100.	(149)	100.	(453)

This study began by looking at the career of one man, Benjamin Franklin, and, through him, posing a number of questions about the early American press. Essentially there were three questions. How did the trade grow? What was the fundamental structure of the trade? And, finally, does the printed literature of early America have a social bias, one resulting from the nature of growth, the structure of the

trade, and the behavior of its members. Simply put, these are simple questions. The answers, however, are far from simple and required moving beyond one man to the entire trade.

The general patterns of growth -- the dimensions of the trade -- revealed two things. First, how much was printed depended on the size of trade at any given time. Second, and because this was the case, the amount of material that was printed did not depend on events to the extent historians have supposed. The capacity of the trade to respond to any event had finite limits, limits imposed by the size of the trade at the time of the event. When and where the trade was large, production followed suit. The size of the trade differed in the three regions of early America. In New England the trade was large, in the Southern colonies it was small. But everywhere, the trade grew like the population of which it was part and which it served. In the Middle colonies, the growth of trade paralleled the growth of the larger population; in New England it surged ahead; in the Southern colonies it lagged woefully behind the parent population.

The reason for the different patterns of growth seems fundamentally demographic. In each region, but particularly in New England and the Southern colonies, the growth of the trade reflected the collective demographic experiences of

its members. When tradesmen won the demographic draw, the trade grew and thrived. When they lost, it did not. Here was the fundamental dynamic of trade growth: Surviving printers trained new men. And within this lay the foundations of association among tradesmen.

At the heart of the demographic experience of the early American press were families. In all regions, but especially in New England and the Southern colonies, the course of trade growth was the course of family growth. In New England families, and particularly the Greens, dominated printing through gross demographic success and interlocking family alliances. The two combined to produce at one time an over-population of printers, but at all times allowed the continuation of family in the trade. In the Southern colonies, families failed to sustain themselves in the trade because of poor demographic luck. Time and time again, death intervened in the progress of family lines, and forced tradesmen to turn to non-familial men. In the Middle colonies families co-existed with non-familial groups. Here as elsewhere, printers trained new men, but here as nowhere else those men were drawn in large measure from beyond the family. The result was a more "professional" style of trade behavior, based on professional trade ties rather than family, which gave the trade in the Middle colonies an expansive quality. In the absence of family ties, printers

in the Middle colonies physically moved about to a greater extent than printers in either New England or the Southern colonies where the "familial" style prevailed.

In all regions and irrespective of style, tradesmen formed associations through the process of training, working, and printing with other men. These trade ties -- apprenticeships, employments, and partnerships -- were bonds which tradesmen valued and used. In combination, these associations formed networks, webs of communication lines, which constituted the underlying structure of the trade itself. Through these moved men, friendships, and, to the extent we have measured it, the printed word. Over time, the growth of the trade, along with the finite capacity of individuals to acquire associations, diminished the imbeddedness of tradesmen in the press at large, and with it the ability to interact. The larger pattern paralleled the course of association in any new community -- an initial period of high network density followed by a general decline. And it is this broad pattern of association which, at least in part, carries implications beyond the confines of the press for it speaks directly to the range and course of human interaction in the colonial period. Any group, any trade, any community subject to growth and spatial limits, would probably have experienced the same decline in the range of personal connections. And

because we are dealing with group whose business was communication, the general effect for others may have been even more pronounced.

For the early American press, the result of declining imbeddedness in the trade was an attendant decline in the ability to move -- to diffuse -- the printed word. Only the truly exceptional event or the truly exceptional work was able to surmount the provincial tendencies of the trade, tendencies engendered and reinforced by the nature of association. In general, more printers did not contribute to greater diffusion, indeed, just the reverse. As time progressed, the spatial range of networks decreased, thus reducing both the ability and the need to use networks to disseminate the printed word. When printed works moved, they moved along network lines -- but they were not moved often.

Whether the nature of trade growth and the patterns of association within the trade imparted a social bias to the literature of the period is, of course, another question. On two counts, however, the answer would seem to be yes. The first concerns the amount of material produced. Because the size of the trade governed how much was printed, and indeed placed finite limits on the amount which could be produced at any given time, the intensity or impact of an event -- judged by the number of works pertaining to it -- must be viewed within the context of trade growth.

Official attitudes, literacy rates, and colonial tastes certainly played roles, but always secondary to the very existence of the press and its size. Clearly the argument is causal, but it is intended to be. Put simply, the size of trade is a necessary and a sufficient cause for explaining the amount of literature produced by the early American press.

The nature of association in the early American press imparts an additional social bias to the literature of the period by virtue of the constraints it placed on diffusion. Because the associational patterns of the trade worked to lessen the inter-regional flow of printed works, the trade -- and its product -- were remarkably provincial. Authors were seldom read outside of the region where their works were printed. And because this was the case, what was printed logically reflects the number of authors and printers more than it does the tastes of readers. Choice, in short, was limited by locale. Thus the popularity of any work or any author in one place or region cannot be judged as a statement of unpopularity anywhere else simply because that work or that author was not printed there. The chances of that happening were low from the start and only decreased. Consequently, judgments about widely printed, widely read, or influential works must be viewed not only in the context of trade growth but also in the context of a

pronounced provincialism.

Such concerns speak to the evidence on which historians of early America rely; they capture little of any felt experience. Yet if any one thing does capture the experience of the early American press, it is family -- pervasive, resilient, family. So difficult to see, yet always there, families lay at the heart of the trade. Two items, by way of contrast, convey this fundamental dimension of the press.

On October 22, 1767 John Mein and John Fleeming issued a prospectus for publishing the The Boston Chronicle, highlighting the fact that theirs would be larger, printed on better paper, with letter types, than any other paper yet still cost the same. These may have been legitimate concerns, but they were hardly mainstream. Both Mein and Fleeming were recent arrivals from Scotland. They had no trade ties, and no network. Just one day later, on October 23, Thomas Green issued the first number of his Connecticut Journal in New Haven. In the first column, Green inserted a brief note addressed to his "Respected Friends." Voicing none of the concerns shown by Mein and Fleeming, Green wrote that while he had been away from New Haven in Hartford for several years, "it was with singular Pleasure and Gratitude, that I have received repeated Solicitations and Encouragement to return to a beloved Acquaintance and Neighbourhood." Now returned, Green continued, he would

publish the Journal regularly. But Green closed his address saying what Mein and Fleeming did not and could not: "As I have no Reason to doubt the Kindness of my Friends, in encouraging this my second Settlement among them, so . . . I shall use my best Endeavors to please and oblige them, and continue that Good Will towards me, and my Family, which I have already been so happy as to experience." [7]

Felicitous perhaps to modern ears, Green's remarks might well seem to reflect the difference between town and country, between Boston and New Haven. They might also appear to mark the difference between the cosmopolitan Mein and Fleeming and the backwater Green. But Thomas Green was no backwater printer. In the course of his career he amassed a network of one hundred and nine tradesmen, including twenty kin, from Portsmouth to Annapolis. His was the career that would last. His were the works that would move across network lines, not Mein's and Fleeming's. And so too were his sentiments and values those of the early American press.

1. The sample includes 16,519 imprints drawn from the data outlined in Appendix 1 which are indicated as being extant by Clifford K. Shipton and James E. Mooney in their National Index of American Imprints . . . The Short-Title Evans, 2 vols. (Worcester and Barre, Mass., 1969). The collation of Shipton and Mooney's listing with the larger listing drawn from Evans' and Bristol's bibliographies results in a loss of data. From an initial total of 20,614 (excluding newspapers), 4,095 are lost in the collation, most because they represent erroneous Evans entries, but some because they are listed in Bristol's Supplement and not in Shipton and Mooney's Short-Title Evans. Considering both sets, neither the annual totals nor the number and percentage of entries bearing explicit printer designations, are statistically different. The net effect, therefore, is simply to reduce the size of the sample without changing its character.
2. The best introduction to the subject of diffusion is Ronald Abler, John S. Adams, and Peter Gould, Spatial Organization (Englewood Cliffs, N.J., 1971), 389-451. Much of the literature on diffusion is technical, but see, Torsten Hagerstrand, The Diffusion of Innovations, Allan R. Pred., trans. (Chicago, 1968); Everett M. Rogers with F. Floyd Shoemaker, Communication of Innovations: A Cross Cultural Approach, 2nd edn. (New York, 1971); Torsten Hagerstrand, "A Monte Carlo Approach to Diffusion," in Brian J. L. Berry and Duane F. Marble, eds., Spatial Analysis: A Reader in Statistical Geography (Englewood Cliffs, N.J.), 368-384; Lawrence Brown, "Diffusion Dynamics: A Review and Revision of the Quantitative Theory of the Spatial Diffusion of Innovations," Lund Studies in Geography, Ser. B, No. 37 (1971); and Peter Gould, "People in Information Space: The Mental Maps and Information Surfaces of Sweden," ibid., 42 (1975).
3. Identifiable governmental authors constituted 12% of all authors with extant imprints. The number of specific works which these authors were responsible amounted to roughly 30% of all extant production. Extra-legal governmental authors (such as the provincial congresses in the various colonies during the war) amounted to 1.3% of all authors and were responsible for only about 1.1 percent of all extant imprints.
4. See Willi Paul Adams, "The Colonial German Language Press and the American Revolution," in Bernard Bailyn and John E. Herch, eds., The Press and the American

Revolution (Worcester, Mass., 1980), 151-228.

5. Certainly newspapers acted as the vehicle for some revolutionary articles. John Dickinson's "Letters From a Pennsylvania Farmer" is an example in which a single series of essays -- like Thomas Paine's The Crisis -- enjoyed wide reprinting and reading. See Carl F. Kaestle, "The Public Reaction to John Dickinson's Farmer's Letters," Proceedings of the American Antiquarian Society, LXXVIII (1968), 323-359. See also, Robert M. Weir, "The Role of the Newspaper Press in the Southern Colonies on the Eve of the Revolution: An Interpretation," in Bailyn and Hench, eds., The Press and the American Revolution, 99-150, which argues that the influence of newspapers exceeded other printing.
6. The 10 most frequently reprinted authors, the number of times their works were reprinted, and the dates of first and last publication were: the Continental Congress (46), 1774-1783; Thomas Paine (37), 1775-1782; Issac Watts (35), 1715-1783; Cotton Mather (29), 1682-1783; Old Testament Psalms, (English Paraphrases) (26), 1640-1783; Increase Mather (25), 1669-1775; George Whitfield (21), 1739-1772; Thomas Dilworth (11), 1747-1783; Westminster Assembly (10), 1682-1783; Benjamin Franklin (8), 1729-1774. Obviously some liberty has been taken with identifying biblical "authors."
7. Proposals for Printing . . . The Boston Chronicle (Boston: Mein and Fleeming, 1767); The Connecticut Journal (New Haven), No. 1, Oct. 23, 1767.

APPENDICES

APPENDIX CNF

SOURCES AND METHODS

What we know about the early American press comes mainly from examining the books and newspapers of the period. Determining how much was actually printed is essentially a matter of comparing what has survived with what other evidence such as printers' account and waste books, bills, and newspaper advertisements indicates was printed.[1] Bibliographers assume, for example, that William Parks published the Virginia Gazette in Williamsburg from 1747 to 1750 because Thomas Jefferson said his personal collection of the paper included these years, even though there are no extant copies of the roughly 150 issues which would have been required to span these years.[2] Similarly, we know who was involved in printing and publishing largely from the names that appear on imprints. An imprint is that portion of a printed item, usually on the title page that identifies where, by whom, and when the work was printed. What is needed for an aggregate analysis of the early American press are (1) an index of imprints and newspapers (the product) and (2) an index of tradesmen (the producers). The problems associated with constructing these indices, as

well as the sources, used warrant discussion.

The Product:

Imprints and Newspapers

The need for an index of imprints leads one to the standard bibliographies of colonial imprints: Charles Evans' American Bibliography, Roger F. Bristol's Supplement to Evans, and Clifford K. Shipton's and James E. Mooney's National Index of American Imprints. The last, as a guide to the Early American Imprints microprint collection, represents a collation and amendment of Evans and Bristol and as such is the single most complete listing of early American printed material.[3] No one of these three works is itself a sufficient source for assaying the early American press. Collectively, however, they provide a point of departure.

Capturing the totality of any historical phenomenon is impossible. Yet the question of how complete these bibliographies may be is fundamental. What do they include? What do they omit? The answers will dictate how they can be used. Completeness of the bibliographies can be assessed first of all in terms of what could have been included. Evans aimed at including every imprint and newspaper printed in America while excluding printed forms. Bristol attempted

to list every imprint and newspaper not in Evans, but included printed forms from the period before 1700 and printed forms from the period after 1700 if they contained a date of printing or the name of a printer.[4] Shipton and Mooney followed Evans on the matter of printed forms but omitted newspapers and periodicals.[5] Completeness, then, in the sense of including more of what could have been included, is weighted toward Bristol's Supplement which includes more kinds of printed matter. Completeness of bibliographic information -- central to any analysis of the press -- is something else. Each bibliography lists author, printer, publisher, and seller when known, but Evans and Bristol specify the function performed by each individually, essentially reproducing the imprint colophon. Shipton and Mooney give only the last names of tradesmen, include no function, and often merge imprint variants under one entry. Thus, in regard to completeness of information, especially information on trade activity, Evans and Bristol are superior to Shipton and Mooney.

Beyond completeness there is the matter of accuracy. Here Evans must bear the brunt of the question since it is his bibliography to which Bristol adds and which Shipton and Mooney amend. Shipton and Mooney estimate that of all Evans' entries, "one in ten is a ghost or contains a serious bibliographical error." [6] Translated into raw numbers,

1,841 Evans entries for the years 1639 to 1783, according to this estimate, are in error in some major way.[7] The most obvious but by no means only errors are those of inclusion or ghosts, that is, entries for which no evidence exists that they were ever really printed, or for which Evans' sources were themselves in error.[8] Without a check of each Evans entry against Shipton and Mooney (who attempted to find the source of every Evans entry) no definitive assessment of the proportion of ghosts in Evans is possible. But bibliographic errors are part of the problem as well, and their impact on aggregate description can be reduced. Mis-attributions of authorship, which Shipton and Mooney went to great lengths to correct, can be completely eliminated by not using Evans for any evidence on authorship. Similarly, the impact of mis-attributions of printer, publisher, or seller by Evans can be reduced by resorting to other evidence about the careers of tradesmen -- where they worked, for how long, with whom -- to check at least the possibility that Evans was correct in this respect, retaining attributions where they coincide with known facts, removing them from consideration when they do not.

What is at hand then are three sources -- Evans, Bristol, and Shipton and Mooney -- each essentially similar, but each with particular weaknesses and strengths for

answering questions about production and growth. Bristol is both accurate and detailed enough to provide sound information on product and producer alike. Yet Bristol is small and by itself inadequate to address questions of magnitude. Shipton and Moneys is the largest of the three. It is also the most accurate for it not only incorporates Bristol but corrects Evans as well. But Shipton and Mooney does not -- and on this point there can be no mistake -- provide enough detailed information to allow analysis of the press as a group of individuals doing different things at different times. Finally Evans. It has the size, the detail, but not the accuracy of either Bristol or Shipton and Moneys. Yet Evans' errors are not an amorphous lot. They are either errors of inclusion or they are bibliographic. And again, the impact of bibliographic errors -- mis-attributions of author, printer, publisher, seller, date and place of publication, as well as the even finer errors of edition or pagination -- can be reduced if not eliminated. Given the nature of the evidence and the questions to be asked, a tactical choice must be made to use Bristol and Evans and to put Shipton and Mooney aside. While such a choice precludes definite assessment of some things, such as the proportion of ghosts in Evans, it allows fuller analysis of others, such as trade membership and function.[9]

The question of how Evans can be used in any quantitative way remains. Accepting for the moment the estimate of a 10 percent error -- even without the reduction that would accrue from not using Evans when assessing authorship and checking attributions of trade activity against known career events -- the most immediate question is where that error would be most pronounced. Logically 10 percent is 10 percent, yet statistically the impact of an error of this magnitude on a small sample would be more pronounced than it would be on a large sample. This translates directly into how Evans' entries are distributed in the period.

Assume for the moment that Evans' error consists exclusively of ghosts, that is, 10 percent of all Evans entries are completely erroneous. If this error is randomly distributed the impact would be greater in those years with the fewest recorded imprints, that is, in the 100 year period from 1639 to 1738 when less than 25 percent of all recorded imprints occur. That more imprints were produced after 1738 is not important; the greater the number the less the statistical impact of an error, even one on the magnitude of 10 percent. But are Evans' errors random? Do they indeed occur evenly over the course of time or are they more evident at particular times?

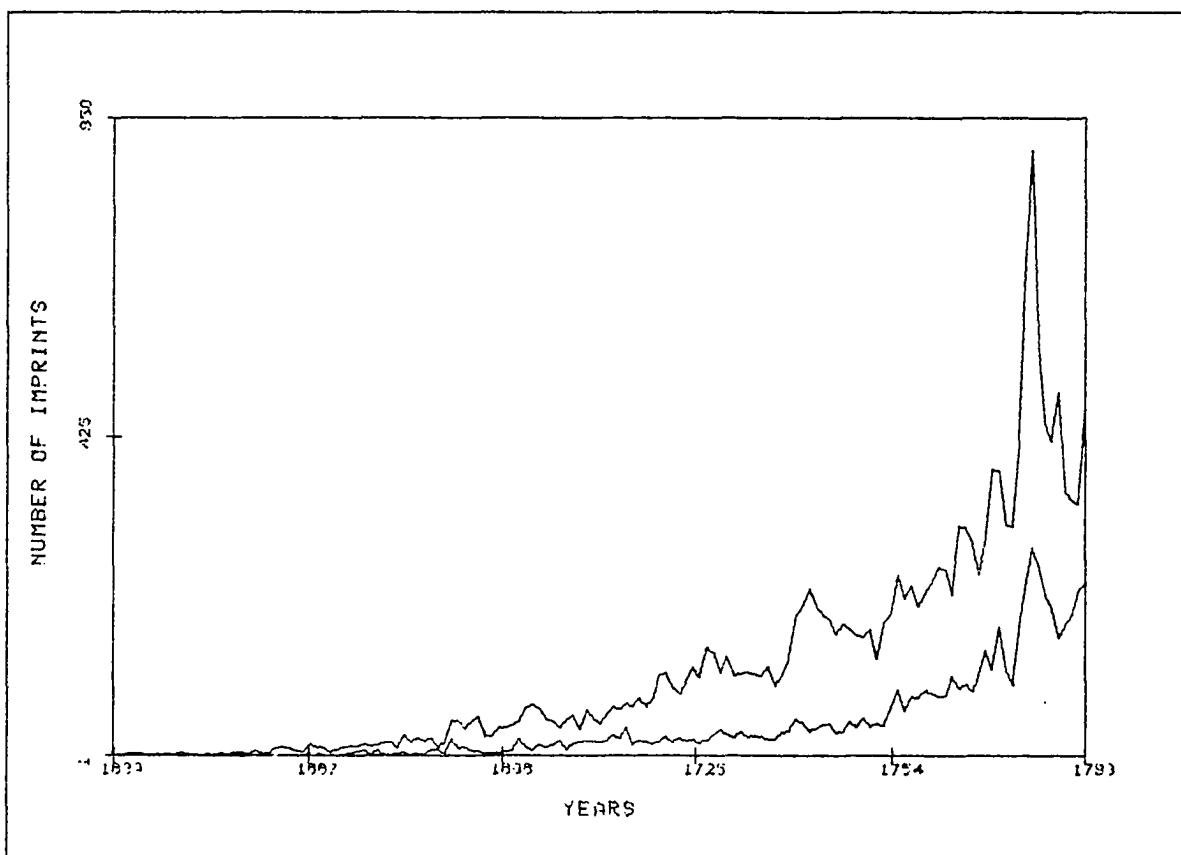
The most direct way to assess whether the errors in

Evans are randomly distributed throughout the period is to compare it with Bristol's Supplement, a bibliography which is patently not plagued with the problem of ghosts. Tests can be made which measure the extent of gross numerical differences between the annual distribution of imprints in Evans and Bristol, and whether those differences might have occurred by chance. Underlying such tests, however, is the assumption that both bibliographies constitute independent samples of the same population, in this case imprints of the colonial period. Put another way, Evans and Bristol as bibliographers swept their brooms over the same historical floor. Evans got the most dust, but left enough for Bristol to make a second, identical sweep. Both swept up the same thing -- imprints. The only difference was in the absolute number they amassed. If this assumption is correct, then the distributions of imprints over time -- specifically, the annual proportion of total imprints -- in each bibliography ought to be the same, or at least not significantly different. But if that distribution is statistically different, then Evans' errors are not random.

Figure A1.1 displays the number of imprints (excluding newspapers) listed in Evans and Bristol for the 145 year period from 1639 to 1783.[10]

Figure A1.1

Imprints Recorded in Evans' American Bibliography
and Bristol's Supplement to Evans, 1639-1783



By all appearances, the distributions are the same, differing only in magnitude. Yet statistical comparison of the annual counts, viewed as proportions of their respective totals, indicate that the two distributions are radically different, to the extent that such differences might occur by chance only once in 1000 times.[11] Clearly the assumption that the two bibliographies constitute

independent samples of the same population is in trouble. Disaggregating the distributions into periods, however, brings the differences into sharper focus. For the 100 year period from 1639 to 1738 the two distributions are not significantly different. But for the 45 years from 1739 to 1783, the annual proportions of the total imprints listed by Evans and Bristol are again significantly different. What this statistical difference means is, quite simply, that Evans and Bristol are not independent numerical samples of the same thing after 1738, while for the 1639-1738 period they are.[12]

While the two bibliographies are not numerically different for the 1639-1738 period, the nature of Evans' errors still remains unknown, or at least unestimated. If statistically the errors are random, substantively they are more likely to be ones of inclusion, but for logical, not statistical, reasons. The earlier the imprint, the less chance it has of surviving to be recorded. And the fewer the printers, publishers, sellers, and authors there were, the less likely Evans' chances of making a bibliographic error. Conversely, the later the imprint, the greater the chance of it actually surviving, and the more printers, publishers, sellers, and authors, the greater the chances of Evans making a bibliographic error rather than including a completely erroneous imprint.

A quick test of this reasoning can be made by examining the imprints produced by two printers, one from the period prior to 1738, one after. John Foster (1648-1681) was active in Boston from 1675 to 1681. Evans lists 54 works printed by Foster and Bristol adds another 6, bringing the total to 60. But of the 54 works Evans lists, no extant copy exists for 6 (11 percent). For Foster, moreover, Evans made no bibliographic errors, that is, no mis-attributions of author, seller, or publisher. His errors were all ones of inclusion. Seth Adams (1740-1782) was active, also in Boston, from 1762 to 1772. Evans lists 55 works printed or published by Adams, Bristol 10. Of the 55 works Evans lists, only two (3.6 percent) are ghosts, three are anonymous works for which Shipton and Mooney supply authors, and one includes an erroneous publisher (or at least the imprint variant Evans used has not been found). Clearly there is a difference in the errors Evans made for the entries of two printers who produced almost exactly the same number of imprints, only at different times. For both Foster and Adams, Evans' errors are on the same magnitude -- 11 percent. But for Foster, they are all errors of inclusion. For Adams, only 4 percent are ghosts; the remaining 7 percent are bibliographic errors.

The comparison of Evans and Bristol thus far hints, albeit vaguely, at the bias of time. In the statistical

analysis of annual numerical proportions the differences between the two bibliographies were axiomatically tied to time because the actual number of recorded imprints increased with time. Foster and Adams, the Boston printers, were separated in time. But another source of bias may be placed. Specifically, the imprints Evans and Bristol record may differ according to place of publication. And one might expect this to be the case. Evans, working in the North, may well have under-represented southern imprints. Bristol, working in the South, may well have recorded proportionally more southern imprints than Evans, that is, imprints from locations south of, say, Philadelphia. Statistical comparison of the locations represented in both Evans and Bristol for the 1639-1783 period, as well as the periods prior to and after 1738, does indicate that in this respect the two bibliographies are indeed significantly different.[13]

A clear North-South division exists between the locations recorded by Evans and Bristol with Bristol, as expected, recording proportionally more southern imprints than Evans. For the six major printing centers south of Philadelphia -- Annapolis, Baltimore, Wilmington, Williamsburg, and Savannah -- Bristol proportionally lists an average of 4.8 times as many imprints as Evans for the entire 1639-1783 period.[14] The differences between the two

for the 1639-1738 period -- a period in which, it will be recalled, the numerical distributions of imprints in both bibliographies were not significantly different -- displays much the same pattern. Of the nine locations for which Evans and Bristol both include imprints, Bristol records proportionally more imprints for five, and the three exhibiting the greatest proportional differences are all southern. The locations for which Evans records proportionally more entries than Bristol, moreover, are all north of Philadelphia. [15]

The most logical question at this point is whether the bias of place explains the bias of time. Does the fact that Bristol has proportionally more southern imprints account for the fact that his and Evans' bibliographies differ in the annual proportions of imprints they record? Testing this proposition requires that the statistical effect of location be controlled. Again we start with the assumption that Evans and Bristol are independent samples of the same population, thus the distributions of locations ought to be the same. That they are not means only that one or both of the samples is biased. Evans clearly under-represents southern imprints, but by the same token, Bristol does not under-represent northern imprints. Indeed, of the fifty-three locations the two record in common for the 1639-1783 period, Bristol has proportionally more imprints for forty-two (79 percent),

including Boston, Newport, R.I., and Portsmouth, N.H. On balance then, Evans, and not Bristol, appears to be the biased sample and the one in need of correction.

If we assume that the true total number of imprints recorded for any given location consists of Evans' plus Bristol's imprints, then what Evans is missing for any locale -- what he does not list -- is the proportion of the true total represented by Bristol. If every Evans imprint were counted once for itself and once for the fractional number representing the missing proportion, Evans' locational distribution would parallel the true locational distribution.[16] The numerical distribution of the two bibliographies could then be retested for difference. If location is a controllable bias, the numerical distributions of Evans and Bristol ought to be statistically similar when Evans is recounted in this manner to reflect the true locational distribution.

Weighting Evans imprints by location and testing the numerical distributions for statistical similarity produces mixed results. For the 1639-1738 period the bibliographies once again display statistical similarity. But for the 1739-1783 period as well as for the period as a whole, the distributions -- expressed as annual proportions of their respective totals -- remain radically and significantly different. What this means, however, is not entirely clear.

On the one hand, the record of printing and publishing represented by both bibliographies for the 100 years from 1639 to 1738 is statistically similar and can thus be legitimately combined and used to make statements about the trade. On the other hand, the record of printing and publishing for the 1739-1783 period reflected in both bibliographies is so different in both time and place that statistically they cannot be considered two images of the same thing. Yet they unequivocally are. Both Evans and Bristol are records -- however different -- of printing in the colonial period. The different patterns of time and place they exhibit must be due to something.

The easiest solution to the dilemma is to reject the assumption that Evans and Bristol are independent samples of the same thing after 1738. Certainly this is what the statistical comparisons suggest and logic supports such a move. As he compiled imprints from the eighteenth century, Evans became privy to more imprints, sounder information on whether a work was actually printed, from more places. The cumulative effect of this was to render Evans' bibliography more complete and, by virtue of its size, the primary sample of colonial imprints to which Bristol only added. What Bristol recorded was due not to chance but rather to where he worked (the South) and when (after Evans). To return to the analogy of the historical floor and bibliographic broom,

Bristol could only sweep up the corners because Evans did such a thorough job.

Rejecting the idea that Evans and Bristol are independent samples of colonial imprints carries certain interpretive costs. While the two bibliographies for the hundred years from 1639 to 1738 can be combined, compared, and statements about the trade made with confidence, for the forty-five years from 1739 to 1783 such statements require qualification. More specifically, how and to what extent Evans and Bristol differ for the years before 1739 can be precisely stated. After 1739 however, precise statements cannot be made, for underlying all statistical tests of difference is the assumption that the samples are independent. Without this one loses hard notions of statistical confidence. These are simply the rules of the game. In practical terms this means that any additional imprints that may come to light in the future, even in large numbers, will not change the patterns found in the combined record of printing contained in Evans' and Bristol's bibliographies for the period from 1639 to 1738. But for the middle decades of the eighteenth century, statements about the trade based on the combined record of Evans and Bristol -- statements about patterns of growth and geographic dispersion, for example -- could very well change with the addition of even moderate numbers of new imprints.

Indeed, it might well be that a large group of new imprints -- imprints unrecorded to this point in time -- is needed to describe adequately not only the differences between Evans and Bristol but also the early American press in the years from the Great Awakening to the close of the Revolution.[17]

Yet historians must deal with what they have. And the limitations imposed by the statistical heterogeneity of Evans and Bristol are by no means crippling. On one hand, the combined bibliographies, translated into information about imprints produced in known years at known places by known printers and publishers for 145 years can be used to explore the diversion of the trade. The principal limitation is that new imprints in any number might change the picture derived for 1739-1783 from the evidence as it now stands.

On the other hand, the statistical similarity of Evans and Bristol for the hundred year period from 1639 to 1738 is a boon for the question of Evans' errors. Recall that one of the major problems in using Evans for aggregate description is the presence of ghosts. Because Bristol's bibliography contains no ghosts -- no errors of inclusion -- and because Evans' bibliography is similar to Bristol's for the 1639-1738 period, Evans' errors of inclusion can be considered random. Any systematic pattern would have been revealed in the numerical comparison of the two. The problem

thus becomes one of magnitude. Logic dictated that Evans' errors in the period were more likely to be ones of inclusion rather than bibliographic. The qualitative sample of Foster's imprints not only confirmed this but the actual proportion of errors (11 percent) was virtually identical to Shipton and McCreary's estimate of 10 percent. If we assume that all of Evans' errors for the 1639-1738 period are errors of inclusion, and that the specific proportion derived from the examination of Foster's imprints is representative of the whole set of early imprints, then the 11 percent error rate can be applied to all of Evans before 1739. Specifically, Evans' yearly counts can be weighted by a factor of .89, effectively eliminating the error by counting every 100 imprints as 89. For the period after 1738, dealing with Evans' ghosts is more troublesome. Statistically, these errors may or may not be random. Logically, they constitute a smaller proportion of all errors than in the early period, a proposition born out by the qualitative sample of Adams' imprints. Thus magnitude is again at issue. If we assume that Evans' errors of inclusion are indeed random, and that the proportion of ghosts derived from the examination of Adams' imprints (4 percent) is representative of all Evans' entries after 1738, then that error rate of 4 percent can be applied to the 1739-1783 period as a whole. The yearly totals of Evans' imprints for

the period can be weighted by a factor of .96, effectively counting every 100 imprints as 96. Here, as for the earlier period, Evans' totals can be weighted down to correct, albeit roughly, for the presence of ghosts.

The gross numerical impact of this procedure is not inconsiderable. Of the 4,159 imprints Evans records for the 1639-1738 period, weighting reduces the total to 3,743. For the 1739-1783 period, weighting brings the total down from 12,923 to 12,408. The combined weights reduce Evans' total count of 17,082 for the 1639-1783 period by 966 or 5.7 percent. Thus Evans' errors of inclusion, his ghosts, are assumed to be roughly 6 percent of all bibliographic entries for the 145 years from 1639 to 1783.

None of these weight factors or the assumptions behind them is definitive. The specific weights are based on qualitative samples and extrapolated quantitatively to the whole -- a methodological mix with some predictable results. The proposition that all Evans' errors before 1739 are ones of inclusion, for example, is perhaps difficult to accept. But the likelihood that far more of his errors in the early period are of this type rather than bibliographic is supported both by logic and analysis. And recall that the impact of bibliographic errors on aggregate analysis has been reduced by not using Evans for any evidence on authorship and by checking all printer, publisher, and

seller attributions against known career events. What is being counted and weighted, moreover, are simply imprints, not what can be termed imprint associations. An 11 percent inclusion error is, if anything, high. The assumption that 4 percent of Evans' errors after 1738 are ghosts is at face value more reasonable, and clearly in line with Bristol's assessment of an acceptable error of 3.2 percent.[18] Here, however, the errors are only assumed to be random. And as in the case with the 1639-1738 period, the weight factor was derived from a qualitative sample and extrapolated to the larger set.

A final caveat involves periodization. The year 1738 does not divide in any way the early American press -- only the data. It merely represents a recognizable point at which Evans' and Bristol's bibliographies become statistically different, nothing more.

The Producers:

Printers, Publishers, and Booksellers

Producing and distributing all these works, of course, were people -- the printers, publishers, and booksellers of the colonial press. Here an index of tradesmen is necessary for aggregate description, for it is important to know exactly who was involved, where, for how long, and in what

capacity for any analysis of production and growth. Yet the problems associated with participation, or involvement, in the trade, while less numerous than those surrounding imprints, are more ambiguous. The basic record of activity in printing and publishing are the imprints and newspapers themselves; an imprint colophon identifies the individuals involved in the production of the work. Yet the imprints -- and here we are talking about Evans' and Bristol's bibliographies as reflected in Bristol's two indices of printers, publishers, and booksellers -- can not reveal the complete picture of activity because they are fundamentally an incomplete record of only one visible aspect of involvement.[19]

There are three essentially related problems in assessing involvement in the trade: identification, duration, and function. Simply stated, the problem is one of identifying unique individuals and then determining the length and nature of their involvement. Yet solutions require far more evidence than the imprints and newspapers provide. Recourse must be made -- for reasons that will become clear -- to a variety of other evidence bearing on the lives and careers of those involved. Without supplementary information, solving these three basic problems becomes difficult if not impossible. The approach required is prosopography, or mass biography -- the

systematic compilation of biographical information for members of a group for the purpose of analyzing their collective experience.[20] For the problems associated with the early American press such an approach is essential.

Examples make the point. According to the imprints, Timothy Green was active in Boston from 1700 to 1754 and in New London, Connecticut from 1713 to 1783 -- a career of implausible length.[21] The time alone would suggest the work of more than one man and, indeed, three Timothy Greens were involved: Timothy Green, I (1679-1757), Timothy Green, II (1700-1763), and Timothy Green, III (1737-1783). We know Timothy, I worked in Boston from 1700 to 1713 after which he moved to New London where he lived until his death. The Boston record after 1713, therefore, must be the work of someone else, for Timothy, I was simply not there. We know that Timothy, I had a son, Timothy, II, that in 1726 he formed a partnership with Samuel Kneeland (1697-1769) in Boston, and that he worked with Kneeland in Boston until 1752 when he went to New London to assume control of his aging father's shop. Thus the Boston record can be assigned to Timothy, I and Timothy, II without much doubt.[22] Timothy, II, however, died in 1763, axiomatically making the New London record after that the work of someone else. Yet we also know that Timothy, II's brother, Samuel Green (1706-1752), had a son named Timothy. And it was this

Timothy, Timothy Green, III who assumed control of the New London shop when his uncle died, and who continued it until his death. Thus the entire imprint record of Timothy Green can be assigned, but only by knowing the lives and careers of those involved.[23]

A second example involves the Boston imprint record of Samuel Gerrish, one extending from 1707 to 1746. As with the Green record, more than one Gerrish was involved: Samuel, Sr. (c.1680-1741), and Samuel, Jr. (1715-1751). Samuel, Sr. died in 1741, making any attribution of the later imprints to him questionable at best. While they could have been published for the benefit of his estate, the fact that he had a son named Samuel and that the son was in Boston at the time the imprints bearing the name Samuel Gerrish were published strongly suggests that two Gerrishes were responsible for the one imprint record.[24] Without resorting to supplementary evidence the imprint records of both Green and Gerrish would be impossible to disassemble. And without the ability to do this, any picture of the trade based on imprints would be distorted, and analyses of growth unsound. On a trade-wide scale, the impact would be profound.

Problems of identification, duration, and function become more complex when attention is shifted to less prolific members of the trade, individuals whose imprint

records indicate only minimal involvement. Where all three Timothy Greens and Samuel Gerrish, Sr. were major figures in the trade, Obadiah Gill (1650-1700) was not. His imprint record consists of only two works, one for each of the years 1685 and 1690. Identifying Gill as a bookseller in Boston during these years is no problem.[25] Yet defining the duration of his activity is both problematic and dependent upon certain judgments. Gill visibly entered the trade only twice, but the length of his involvement -- defined as the time between his first and last imprint associations -- is six years. Defining duration in this way perhaps exaggerates Gill's temporal activity, for the imprint record really says that he was active for only two years, 1685 and 1690. Yet if we assume that he could have had more imprint associations, that is, more imprints bearing his name, and that the reasons he did not were due to the internal dynamics of the trade itself, then the more accurate measure of his involvement in the trade is the duration between his first and last imprint.

Then there are those individuals who were active in the trade but whose names never appeared on imprints. Consider, for example, William Hall (c.1755-c.1827), the son of Benjamin Franklin's Philadelphia printing partner David Hall (c.1714-1772). Bristol records no activity for William Hall, yet his involvement is certain. In 1766 David Hall entered

into partnership with William Sellers (1725-1804) and began printing under the name of Hall & Sellers. When Hall died in 1772 he was succeeded by his two sons, David, Jr. (1755-1821) and William, who, with Sellers, continued the Hall & Sellers concern. Bristol, however, records the imprints of Hall & Sellers under William Sellers and David Hall (senior and junior undistinguished as was the case with Green). Yet William Hall was an active member of the firm and must be considered a member of the trade. Without knowing that William Hall succeeded his father along with his brother, the imprint record of Hall & Sellers could not be properly viewed.[26]

Determining function is the most ambiguous problem to be faced. In the seventeenth and eighteenth centuries trade functions as we know them -- printer, publisher, seller -- were neither distinct nor well defined. Publisher, defined as the supplier of venture capital, was a particularly hazy role. Compounding the problem are multiple or overlapping functions that characterized the trade. Printer and seller, for example, was a frequent combination. While a few account books indicate active printing, publishing, or bookselling, nothing on a trade wide scale exists to support firm generalizations about the nature of functions.[27] One can, however, take a lead from the imprints themselves.

Three major functional designations characterized seventeenth and eighteenth-century imprints: printer, seller, and what can be termed sponsor. The phrases "printed by" and "sold by" very clearly indicate the roles of printer and seller, respectively. The compound "printed by and sold by" indicates that the printer also sold the work -- although for whose benefit cannot be said. The third designation was that of "printed for" which, when one considers that fundamentally there are only three primary functions involved in the business of printing any work, past or present, those being printer, publisher, and seller, might well be assumed to indicate something akin to publisher. If we assume that in a rough way "printed for" and its ancillary "for" meant publisher -- termed sponsor because of the essential looseness of colonial practice -- function can be assigned on the basis of imprints.

The imprints themselves tend to support the case. Daniel Henchman (1689-1761) is one of the few colonial tradesmen whose financial records survive. They indicate beyond doubt that Henchman was a full-fledged publisher -- that he put up money to have works printed and that he did it as a business.[28] Henchman's imprint record consists of 327 works of which 290 (88.7 percent) bear the colloquial designations "printed for" or "for." Another 20

(6.1 percent) bear the designation "printed for and sold by," and another 6 (3.7 percent) the designation "sold by." In all, 98.5 percent of Henchman's known recorded imprint associations indicate that he sold or sponsored the work.[29] On the other side of the coin is Bartholomew Green, Sr. (1667-1732) whose imprint record extends more than 40 years and includes 978 imprint designations. By all accounts Green was a printer, nothing more, a judgment his record bears out. Fully 99 percent of all Green's designations were either "printed by" or "printed by and sold by." Only one imprint has any other designation, and that is "sold by." Certainly imprint designations cannot be used alone nor can they provide a definitive assessment of trade functions. Yet they do provide real, usable guidelines for classifying functions -- and thus trade roles -- for the early American press.

Summarizing briefly, the prosopography of the press and the compilation of publication information from Evans and Bristol yield two interrelated and compatible sets of data. The first is an index of individuals whose activity in printing and publishing, once established, can be defined by type or function as well as length. The second is an index of imprints and newspapers for which not only date and place of publication are known, but also the individuals involved

in production. Each set complements the other. The identification of discrete individuals, for example, allows the imprint set to be properly assigned to those individuals, and this in turn allows the exact number of works with which any tradesman was associated to be established. Moreover, patterns of association, both formal (partnerships, for example) and informal (particular printer-sponsor-seller groups) can be located and analyzed. And everything can be done on a continental, local, or individual scale. In short, imprint and trade indices, alone or in combination, provide sound evidence for analyzing the structure, size, and growth of the early American press.

1. As practiced in bibliography on an individual scale, Marcus A. McCrisson, Vermont Imprints, 1777-1820 (Worcester, 1963) and C. William Miller, Benjamin Franklin's Philadelphia Printing, 1728-1766: A Descriptive Bibliography, American Philosophical Society, Memoirs, CII (Philadelphia, 1974), are exemplary. See also Thomas J. Holmes, Cotton Mather: A Bibliography of His Works, 3 vols. (Cambridge, Mass., 1940).
2. Clarence S. Brigham, History and Bibliography of American Newspapers, 1690-1820, (Worcester, Mass., 1947), I, 1158-1159.
3. Charles Evans, American Bibliography, 14 vols. (Chicago and Worcester, 1903-1959); Roger P. Bristol, Supplement to Charles Evans' American Bibliography (Charlottesville, 1970), hereafter cited as Bristol, Supplement; and Clifford K. Shipton and James E. Mooney, National Index of American Imprints through 1800: The Short-Title Evans, 2 vols. (Worcester and Barre, Mass., 1969), hereafter cited as Shipton and Mooney, Short-Title Evans.
4. Bristol lists his rules for inclusion in his Supplement, x.
5. The rationale for this omission was the existence of Brigham's History and Bibliography of American Newspapers, Edward C. Lathem, Chronological Tables of American Newspapers, 1690-1820 (Worcester and Barre, Mass., 1972), and separate microprint publication of the newspapers and periodicals.
6. Shipton and Mooney, Short-Title Evans, I, vii.
7. Based on the total of 18,415 Evans entries for the period from 1639 to 1783, including newspapers.
8. Shipton and Mooney, Short-Title Evans, I, vii-viii.
9. An analysis of Shipton and Mooney to establish this is currently in progress.
10. An index of imprints has been compiled primarily from Evans, American Bibliography; and Bristol, Supplement; and supplemented with Shipton and Mooney, Short-Title Evans; McCrisson, Vermont Imprints; idem, Additions and Corrections to Vermont Imprints, 1778-1820 (Worcester, 1968-1973); and Miller, Benjamin Franklin's Philadelphia Printing. Evans and Bristol have been

corrected using "American Bibliographic Notes," Proceedings of the American Antiquarian Society, LXXXII (1972), 45-64; LXXXIII (1973), 261-296; LXXXVI (1976), 409-418; LXXXVII (1977), 195-211; LXXXVIII (1978), 83-119. Because both Evans and Bristol included newspapers, references in each bibliography to newspapers have been removed from the count. Supplementary newspaper publication data has been gathered from Erigham, History and Bibliography of American Newspapers. While newspapers have been excluded from the distributions shown in Figure A1.1, they have been counted as 1 "imprint" for each year of publication in all tallies noted below.

11. The test used was the Kolmogorov-Smirnov non-parametric two sample test. See, Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York, 1956), 127-36. The .001 confidence level, instead of the less stringent .01 or .05, was selected for two reasons. (1) The distributions being tested are patently not normal: both are time series. (2) The power-efficiency of the Smirnov test is roughly 96 percent of the parametric T Test; and at the .001 level there could be no doubt as to the probabilities involved.
12. The cutpoint of 1738 was arrived at in the following manner. Kolmogorov-Smirnov two sample tests were made on Evans' and Bristol's annual counts in 10 year intervals beginning in 1639. If it could be assumed from the results of the test that the two samples were drawn from the same population, another 10 year increment was added: 1639-1648, 1639-1658, 1639-1678, and so on. With the addition of the 1739-1748 totals, a difference between the two distributions emerged, significant at the .001 level. The distributions for the 1739-1783 period were also significantly different at the .001 level. The choice of 10 year increments was arbitrary. Other increments might well yield a different cutpoint, but it would very likely be around 1740. The Kolmogorov-Smirnov test is highly sensitive to changes in the number of observations in each distribution, thus disaggregation of the 1739-1783 period yielded some conflicting results. The 1739-1754 distributions were, by themselves, not significantly different: the 1739-1768 distributions, however, were. The only short period after 1739 which proved to have a significant difference between the two distributions was 1768-1783. The fact that both distributions are fundamentally and unequivocally not normal makes disaggregation of the distributions into short periods

most hazardous -- in spite of the fact that the Kolmogorov-Smirnov test is non-parametric and makes no hard assumptions about the distributions being tested.

13. Again, the Kolmogorov-Smirnov two sample test was employed.
14. The exact proportional ratios of Bristol to Evans entries (i.e., the ratio of the percentage of all Bristol entries for a given location to the percentage of all Evans entries for the same location) for the five southern centers are: Annapolis (3.1:1), Baltimore (6.7:1), Wilmington, Del. (1.1:1), Williamsburg (2.9:1), Charleston (4.6:1), Savannah (10.4:1). Location was defined as place of printing when known and when unknown as place of selling. In instances where place of selling differs from place of printing, place of printing was used. When place of printing was unknown, and two or more places of selling were known, location was randomly selected.
15. The distribution of locations recorded by Evans and Bristol for the 1639-1738 period and the proportional ratios of Bristol to Evans imprints is as follows.

Location	Evans		Bristol		Ratio: B/E
	N	Pct.	N	Pct.	
Unknown	6	.14	19	1.82	12.6:1
Charleston	9	.22	22	2.11	9.8:1
Annapolis	32	.77	48	4.60	6.0:1
Williamsburg	21	.50	29	2.78	5.5:1
Newport	33	.79	30	2.88	3.6:1
Boston	2,376	57.13	659	63.18	1.1:1
New London	175	4.21	37	3.55	.84:1
New York	588	14.14	92	8.82	.62:1
Cambridge	335	8.05	41	3.93	.49:1
Philadelphia	568	13.66	63	6.04	.44:1
Totals:	4,143	99.61	1,040	99.71	

Ratios represent the ratio of the percent of all bibliographic entries for a given location in Bristol to the percent of all bibliographic entries in Evans for the same locale. Twenty locations are recorded altogether. Only nine, plus imprints with an unknown place of printing are listed. Eight locations are represented only by Evans, and one is recorded only by Bristol: these are excluded from the table. St. Mary's, Maryland has also been excluded because it represents only one imprint from Evans and two from Bristol, but proportionally yields a deceptive 6.4:1 ratio.

16. If Evans (E) recorded 100 imprints for a given location (L) and Bristol (B) recorded 40, then the assumed true total number (T) would be: $T = E + B$. Expressed proportionally, the assumed true proportion (P) would be: $P = E/T + B/T$ ($P = .71 + .29$). Therefore each Evans imprint at location (L) would be counted as $1 + .29$.
17. The current effort of the American Antiquarian Society to catalogue its large collection of broadsides may well provide the necessary imprints.
18. Bristol, Supplement, ix.
19. Roger P. Bristol, Index of Printers, Publishers, and Booksellers Indicated by Charles Evans in his American Bibliography (Charlottesville, 1961); idem, Index to Supplement to Charles Evans American Bibliography (Charlottesville, 1971).
20. A concise discussion of prosopography as a general method is Lawrence Stone, 'Prosopography,' Daedalus 100 (1971): 46-79. For a justification and application of the approach in colonial history see Darrett B. and Anita H. Rutman, "'More True and Perfect Lists:" A Note on the Reconstruction of Censuses for Middlesex County, Virginia, 1668-1704,' Virginia Magazine of History and Biography, LXXX (1980), 37-74; idem, "'Now-Wives and Sons-in-Law': Parental Death in a Seventeenth-Century Virginia County," in Thad W. Tate and David L. Ammerman, eds., The Chesapeake in the Seventeenth Century: Essays on Anglo-American Society (Chapel Hill, 1979), 153-82.
21. The Boston record actually includes a 1765 imprint (E9916) that is, however, misdated. The correct date according to Shipton and Mooney is 1733. The New London record extends beyond 1783 but is not considered.
22. While Timothy Green, II left Boston for New London in 1752, the Boston imprints for 1753 and 1754 do carry the colophon of Samuel Kneeland (1697-1769) and Timothy Green. Since all but one (E7340 which carries no printer designation) of the imprints in question were Massachusetts laws, it might be supposed that Kneeland and Green, who were in partnership from 1726 to 1752, had some agreement for continuing a joint venture. The explanation, however, may be as simple as Kneeland not being able to replace the official colophon plate. A similar situation exists for Timothy Green, I who left Boston at the end of 1713 but whose Boston record includes three 1714 imprints (E1661, E1677, E1702).

Bristol recognized that listing imprints by name and location would obscure differences between individuals with the same name who were active in the same place, as well as discrete individuals who were active in different locales.

23. The prosopographical data for the Greens as well as the rest of the colonial press was compiled from a variety of primary and secondary sources. First and foremost is the American Antiquarian Society's Printers File, a collection of biographical and trade information compiled over the course of some 40 years. The Printer's File itself draws upon all of the standard secondary works, too numerous to mention, but contained in G. Thomas Tanselle's Guide to the Study of United States Imprints, 2 vols. (Cambridge, Mass., 1971), the immense genealogical holdings of the Society, virtually all colonial newspapers (which, it seems worth noting, supplied Clarence S. Brigham with enough material for his History and Bibliography of American Newspapers), vital records (although invariably only printed ones), as well as the imprint holdings of the Society. The particular sources pertaining to the Greens include William C. Kiessel, "The Green Family: A Dynasty of Printers," New England Historical and Genealogical Register, CIV (1950), 81-93; Boston Newsletter, May 12, 1757; New England Hist. and Genealogical Register, LXXXIV (1930), 162; Douglas C. McMurtrie, "The Green Family of Printers," Americana, XXVI (1932), 364-375; Thomas Spooner, The Records of William Spooner (Cincinnati, 1883) I, 147; Isaiah Thomas, The History of Printing in America, 2nd edn., Marcus A. McCorsion, ed. ([1874]New York, 1970), 101-03, 244-45, 296-98. (All references are to this edition.)
24. The sources for both Gerrishes include George E. Littlefield, Early Boston Booksellers, 1642-1711, 2 vols. ([1900]New York, 1969), 210-214; Boston Evening Post, May 18, 1741; Boston Newsletter, May 14, 1741; "Samuel Gerrish," Massachusetts Historical Society, Proceedings, 2nd Ser., XIV (1901); Mary I. Hoffman, Ancestors and Descendants of John Coney (Concord, 1928), 77; Boston Evening Post, Aug. 5, 1751; Samuel Sewall, The Diary of Samuel Sewall, 2 vols., M. Halsey Thomas, ed. (New York, 1973).
25. Thomas, History of Printing, 194.
26. The sources for the Halls include Thomas, History of Printing, 390, 397, 403, 436; William McCulloch, "Additions to Thomas's [sic] History of Printing,"

Proceedings of the American Antiquarian Society, XXXI (1921), 140; Robert Hurd Kany, "David Hall: Printing Partner of Benjamin Franklin" (Ph.D. diss., Pennsylvania State Univ., 1963); Douglas C. McMurtrie, History of Printing in the United States . . . Middle and South Atlantic States (New York, 1936), 57; Brigham, History and Bibliography, II, 934; Pennsylvania Journal, Dec. 30, 1772; Pennsylvania Gazette, May 27, 1813; "David Hall," Dictionary of American Biography, VII, 123. Annual counts of persons active in the trade, defined on the basis of imprint evidence alone, averaged 89.7% (Std. Dev. = 12.8) of counts of persons active in the trade defined by all evidence. The median was 91.6%. On the basis of 5 year counts, the mean and median percentages were 90.8% (Std. Dev. = 11.1) and 92.8%, respectively.

27. Rollo G. Silver, "Publishing in Boston, 1726-1757: The Accounts of Daniel Henchman," Proceedings of the American Antiquarian Society, LXVI (1958), 17-36; George Simpson Eddy, ed., Account Books Kept by Benjamin Franklin: Ledger, 1728-1739, Journal, 1730-1737 (New York, 1928); *idem*, Account Books Kept by Benjamin Franklin: Ledger 'D,' 1739-1741 (New York, 1929); Worthington C. Ford, The Boston Book Market (Boston, 1917); Virginia Gazette, Daybooks, 1750-1752 & 1764-1766, MS, Virginia State Library, Charlottesville; Jeremiah Condy, Account Book, 1759-1770, MS, American Antiquarian Society, Worcester.
28. Silver, "The Accounts of Daniel Henchman;" William T. Baxter, "Daniel Henchman, a Colonial Bookseller," Essex Institute Historical Collections, LXX (1934), 1-30.
29. Henchman's two other imprint designations, printer and printer-seller, may indicate changing definitions or more probably the ambiguity of functions, but there is little doubt that Henchman was not a printer.

APPENDIX TWO

TRADE GENEALOGIES

Much of the narrative in Chapters 3 and 4 can be expressed graphically. Like Illustration 4.1, the growth of the trade and the associations of tradesmen can be presented in schematic form, although not always with parsimony. What follows are six selected examples of "trade genealogies," schematic views of the chronological history of the printing trade in various locales.

The term genealogy was chosen for the simple reason that much of the history of the early American press can be construed in familial terms, and chapters 3 and 4 stand as evidence. But the term genealogy also implies descent and, both chronologically and professionally, the printing trade was characterized by descent. The six trade genealogies presented represent only a sample. They vary in complexity from the single Franklin family, through the single colony, North Carolina, to two major genealogies which attempt to capture the full range of the trade in Boston.

The actual figures reflect certain conventions. Solid vertical lines indicate activity in the printing trade over time and can be read against the time line to the left of

each figure. The names of tradesmen are placed over the start of all "activity" lines. Dashed horizontal lines indicate associational ties -- partnerships, apprenticeships, or other working associations. Horizontal arrowed lines (>>>>>) indicate either movement from one locale to another within the geographical confines of the figure, or the movement of equipment from one printer to another. In each case, the lines are labeled to prevent confusion. Major familial and professional "events" are scripted along "activity" lines.

The intent of providing these trade genealogies is to allow a larger, and more or less instantaneous, picture of the trade -- drawing upon the narrative of Chapters 3 and 4 -- to be seen. These trade genealogies, along with others not included, provide the basis of the network analysis presented in Chapter 5. In all six figures, virtually every printer to have worked in the particular place in the period listed is included. The reader would be advised to view the six figures in order to facilitate adjustment to the particular style of presentation.

FRANKLIN FAMILY IN NEW ENGLAND PRINTING, 1717-1768

BOSTON NEWPORT

JAMES FRANKLIN, SR.

BENJAMIN FRANKLIN
1712

1717-BEGINS BUSINESS

APPRENTICED
1718-1723

TO PHILADELPHIA, 1723
1723-M. ANN SMITH
1724-B. JAMES JR.

1726-TO NEWPORT

1730-B. SARAH

ANN FRANKLIN

D. 1735

ASSUMES BUSINESS

FRANKLIN, JR.

1741-1743
APPRENTICED TO
B. FRANKLIN

1749-1749 PARTNERSHIP

SAMUEL HALL
APPRENTICED TO
DANIEL FOWLE
IN PORTSMOUTH,
C. 1755-1762

D. 1762

D. 176

M. SARAH FRANKLIN, 1763

TO SALEM, MASS., 1768

1700

1710

1720

1730

1740

1750

1760

1770

PRINTING IN SAVANNAH, 1761-1790

1750

JAMES JOHNSTON

(FROM SCOTLAND, 1760)
1761

1765 M. SARAH LAWRENCE (B. 1740)

1766 B. JAMES JR., C. 1790

18 CHILDREN, 1760-1782,

1768 B. NICHOLAS ONLY SEVEN SURVIVED

1770

1778 TO ST. VINCENT, W.I. EQUIPMENT CONFISCATED AND GIVEN TO LANCASTER WILLIAM LANCASTER
RETURNS, 1779 JOHN D. HAMMERER EDWARD WELSH 1777 ? MUMFORD

1779 OPERATING AT JOHNSTON'S. PROBABLY GETS EQUIPMENT 1778 PROBABLY GETS EQUIPMENT 1777 1778

SHOP, 1779-1782

1782 NICHOLAS JOHNSTON

1780

PRINTING IN NORTH CAROLINA

NEW BERN

JAMES DAVIS

APPRENTICED TO WILLIAM PARKS
IN WILLIAMSBURG, C. 1742-1749

1740

1749 OPENS SHOP

1750

1752 M. PRUDENCE

1753 B. JAMES, JR.

1755 B. JOHN, D. 1775-83 (ARJ)
APPOINTED POSTMASTER, 1755

1757 B. SARAH

1758 B. WILLIAM, D. 1775-83 (ARJ)

1760

1761 B. THOMAS

1763 B. PRUDENCE

1766 B. SUSANNA

1770

1769 SHOP DESTROYED
BY HURRICANE

THOMAS DAVIS

APPRENTICED TO
FATHER BEFORE 1778

1778

SERVES IN REVOLUTION, 1773-1781

1780

TO HALIFAX, 1781

RETIRES. 1781

ROBERT KEITH

(FROM CHARLESTON)

BUYS DAVIS' 1780

EQUIPMENT

1785

RETURNS TO NEW BERN, 1784

D. 1785

1790

ANNAPOLIS

EDMUND HALL

1729

1737

JONAS GREEN

IN PHILADELPHIA, 1735-1738
WORKED FOR WILLIAM BRADFORD
AND BENJAMIN FRANKLIN
M. ANNE HOOF, 1738

1720
1730
1740
1750
1760
1770
1780
1790

1738

1745 B. WILLIAM

1750 B. FREDERICK

1757 B. SAMUEL

1758

WILLIAM RIND

APPRENTICED
TO JONAS GREEN

FORM PARTNERSHIP, 1758

1765

TO WILLIAMSBURG, 1765

ANNE GREEN

D. 1767

1768

WILLIAM GREEN

1770

D. 1770

FREDERICK
GREEN

1772

D. 1775

1777

SAMUEL GREEN

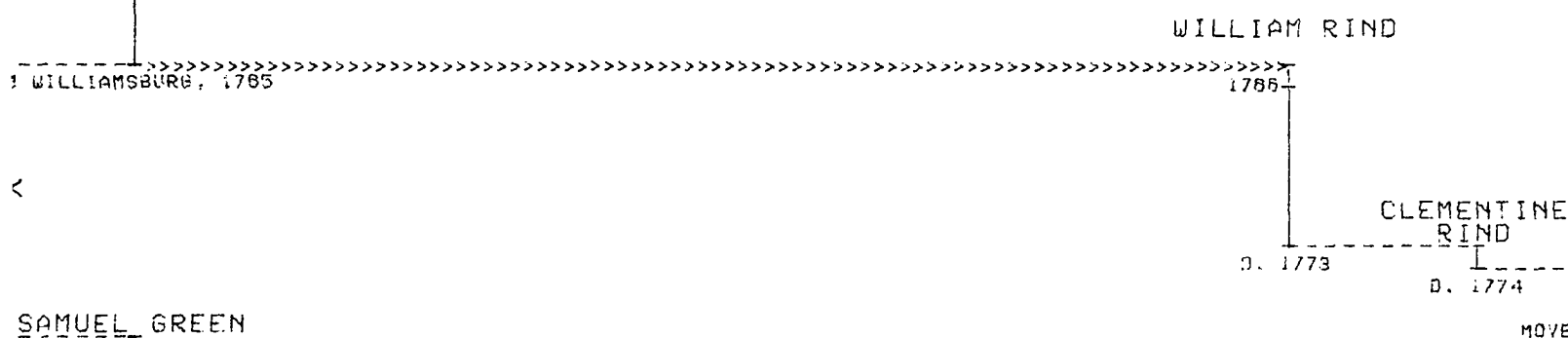
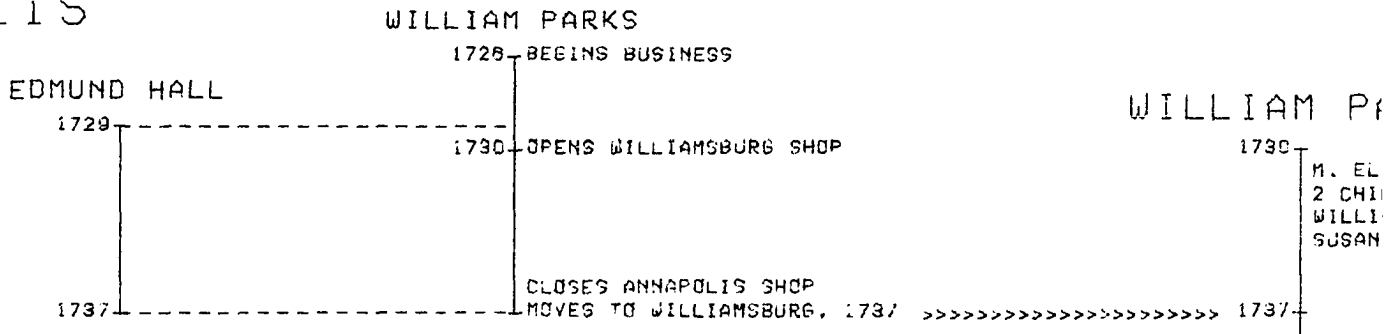
M. ?, 1778
B. JONAS, 1779

(TO 1811)

(TO 1811)

PRINTING IN ANNAPOLIS AND W

ANNAPOLIS



(TO 1811)

20-1790

WILLIAMSBURG

JOSEPH ROYLE

1757. M. ROSANNA HUNTER,
SISTER OF WILLIAM HUNTER

SHOP
1758-1761

ROSANNA
ROYLE

JOHN
DIXON

ALEXANDER
PURDIE

1765

1765

D. 1766

1766. MARRIES
JOHN DIXON

(WITH ROSANNA ROYLE)

176?. B. JOHN, JR.

UNCLE-NEPHEW

1774

JOHN CLARKSON

THOMAS
NICOLSON

AUGUSTINE
DAVIS

1780

D. 1779

1779

1780

1779, AS

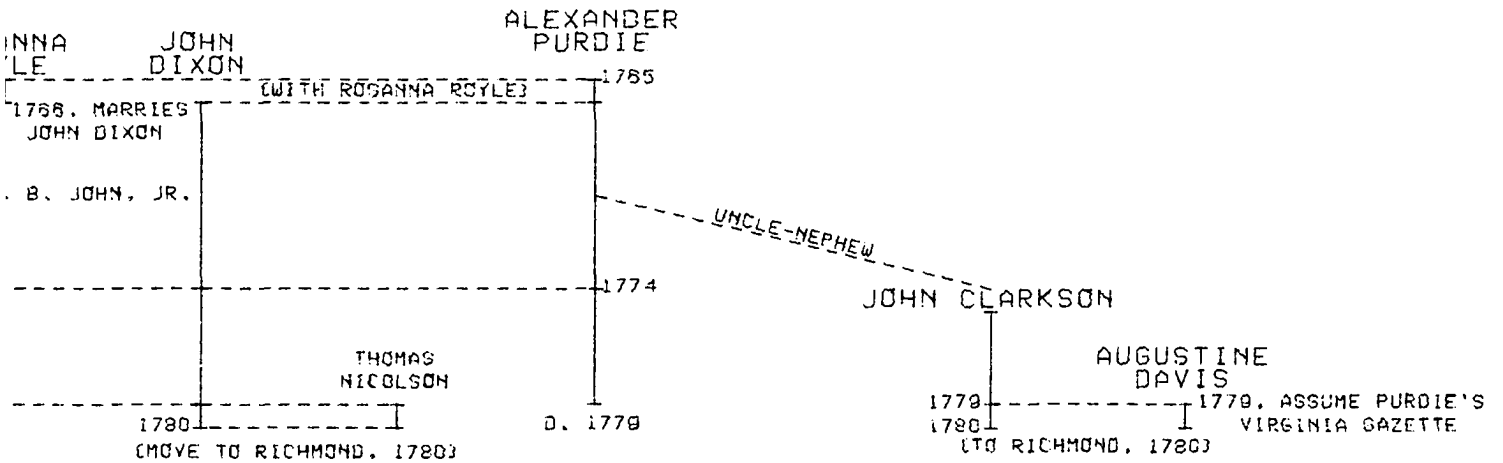
VIRGINIA

(MOVE TO RICHMOND, 1780)

(TO RICHMOND, 1780)

MSBURG

ANNA HUNTER.
WILLIAM HUNTER



PRINTING TRADE

CAMBRIDGE

1630
1640
1650
1660
1670
1680
1690
1700

MATHEW DAYE

1639

SAMUEL GREEN

1639. M. JANE BANEBRIDGE (D. 1
1648. B. SAMUEL, II

D. 1649

BEGINS. 1649

B. DEBORAH, 1655

MARMADUKE JOHNSON

1660

M. SARAH CLARK, 1662

B. JONAS, 1664

TO ENGLAND, (1664

B. LYDIA, 1665

RETURNS WITH PRESS. 1665

B. ELIZ., 1665

B. BARTHOLOMEW, 1667

B. MARY, 1669

QUASI-PARTNERSHIP
1665-1674

M. RUTH CANE, 1670

1670

B. DORCAS, 1671

B. DA, DIED YOUNG

TO BOSTON, 1674

1680

B. TIMOTHY, 1679

SAMUEL GREEN.

1692

BARTHOLOMEW GREEN

1685

APPRENTICED
1685-1690

1690

1690

TO CAMBRIDGE, 1690

D. 1691

1692

TO BOSTON, 1692

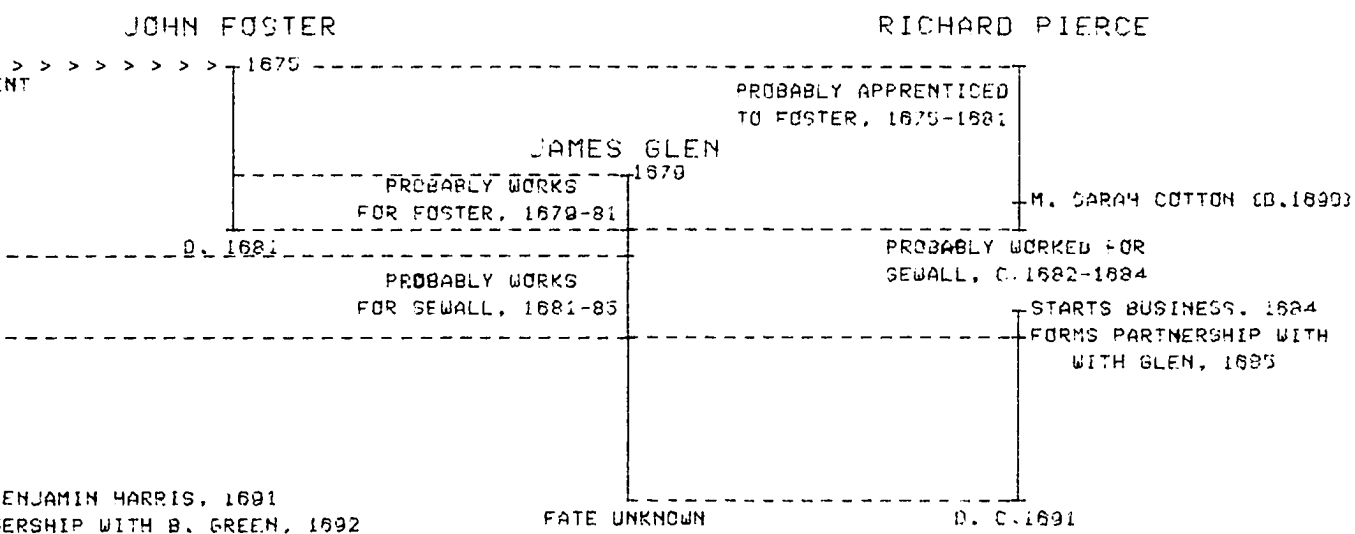
RETIRES, 1693

D. 1702

(TO 1732)

ND BOSTON, 1630-1700

STON



1685
1695
1705
1715
1725
1735
1745
1755
1765
1775
1785

JOHN ALLEN

TO ENGLAND, C. 1704
RETURNS, C. 1705
1707

JOHN DRAPER
APPRENTICED
TO B. GREEN
C. 1717-18
1726 M.
1727 B.
B.

D. C. 1727

ASSUMES B. GREEN'S SHOP, 1732

M. ELIZ. AVERY, 1737

RICHARD DRAPER
APPRENTICED
TO FATHER, J. DRAPER,
C. 1740-1750
M. MARGARET GREEN, 1750

NO CHILDREN

SAMUEL DRAPER
APP. TO UNCLE,
JOHN DRAPER,
C. 1750-1757
PRINTED WITH
ZECHARIAH FOWLE
1758-1762

PROBABLE SILENT
PARTNERSHIP,
1751-1762

1782

D. 1762

JOHN BOYLE
APPRENTICED
TO JOHN GREEN,
C. 1762-1769

D. 1767

1769

PRINTS WITH DRAPERS. 1774

MARGARET
GREEN DRAPER

D. 1774

EDWARD DRAPER
PROBABLY APP. TO
UNCLE, JOHN DRAPER,
C. 1767-1774
1775

LOYALIST,
LEFT BOSTON, 1776

1778

JOHN
WEST FOL

1783

(TO 1803)

(TO 1831)

(TO 1801)

BARTHOLOMEW GREEN, SR.

JOHN ALLEN

M. MARY SHORT, 1692

B. MARY, 1695
B. DEBORAH, 1697
B. BARTHOLOMEW, JR., 1699

TIMOTHY GREE

APPRENTICED TO B. GREEN, 1692-1700
1700-OPENS

TO ENGLAND, C.1704
RETURNS, C.1706
1707

M. HANNAH TOPPAN, 1710
B. SAMUEL, D. 1712

TO NEW LONDON, SI
APP.

JOHN DRAPER

APPRENTICED TO B. GREEN, C.1717-1726

1726 M. DEBORAH GREEN (D.1736)
1727 B. RICHARD
B. JOHN
B. LYDIA

D. C. 1727

BARTHOLOMEW GREEN, JR.

APP. TO FATHER, B. GREEN, SR., C.1713-1720

QUASI-PARTNERSHIP, 1725-1732

B. MARGARET, 1726

ASSUMES B. GREEN'S SHOP, 1732

BEZOUNE ALLEN

APP. TO B. GREEN M. MARY GREEN, 1734
1735

D. 1732

B. JOHN, 1731

JOHN BUSHELL

APP. TO GREENS
1736

M. ELIZ. AVERY, 1737

VARIED PARTNERSHIPS AMONG ALLEN, GREEN, AND BUSHELL, 1736-1749

JOHN GREI

APP. TO FATH B. GREEN, JR C.1741-174

D. C. 1747

1740

1740

1740

TO HALIFAX, TO HALIFAX, 1751

N.S. 1751

B. 1751 JOSEPH RUSSELL

APP. TO B. FOWLE, C.1748-1755

M. 1
DR. 1

RICHARD DRAPER

APPRENTICED TO FATHER, J. DRAPER, C.1740-1750
M. MARGARET GREEN, 1750

NO CHILDREN

PROBABLE SILENT PARTNERSHIP, 1751-1762

1782
1763

D. 1762

1767

EDWARD DRAPER

PROBABLY APP. TO UNCLE, JOHN DRAPER, C.1767-1774

D. 1774

1775

JOHN WEST FOLSOM

1778

1793

(TO 1831)

(TO 1851)

1774

QUITS, 1776

QUITS, 1776

SHORT, 1692

. 1695

RAH, 1697

HOLOMEW, JR., 1699

TIMOTHY GREEN, I

APPRENTICED
TO B. GREEN,
1692-1700
1700- OPENS SHOP

M. MARY FLINT, 1702
B. TIMOTHY, II, 1703

B. SAMUEL, III, 1706

B. JOHN, 1708

AH TOPPAN, 1710

B. NATHANIEL, 1710

EL. D. 1712

B. JOMAS, 1712

TO NEW LONDON, 1713

SAMUEL KNEELAND

APP. TO B. GREEN, C.1711-1718
1718- OPENS SHOP

TIMOTHY GREEN, II

M. ELIZABETH GREEN APPRENTICED
TO T. GREEN, I,
B. MARY, 1722 (DY) IN NEW LONDON,
C.1716-1724
B. SAMUEL, 1724 WORKS FOR
B. DANIEL, 1725 B. GREEN, 1725

ARTHLOMEW
REEN, JR.

P. TO FATHER,
GREEN, SR.,
C.1713-1720

B. MARGARET, 1726

SHIP,
732

B. JOHN, 1731

JOHN
BUSHELL
APP. O GREENS
1738

MONG
ELL,

JOHN GREEN
APP. TO FATHER,
B. GREEN, JR.,
C.1741-1749

1749

1749

TO HALIFAX, TO HALIFAX, 1751
N.S., 1751

D. 1751 JOSEPH RUSSELL

APP. TO D. FOWLE,
C.1748-1755

M. LYDIA
DRAPER,
1755

1752

TO NEW LONDON, 1752

DANIEL
KNEELAND
APP. TO FATHER

JOHN
KNEELAND
APP. TO FATHER

M. ANN KNEELAND

1759

SETH ADAMS
APP. TO AND
WORKS FOR
KNEELANDS,
C.1758-1765

RETIRES, 1765
D. 1769

QUASI-PARTNERSHIP,
1765-1775

NATHANIEL
DAVIS

1772

QUITS, 1772

1774

QUITS, 1774

QUITS, 1775

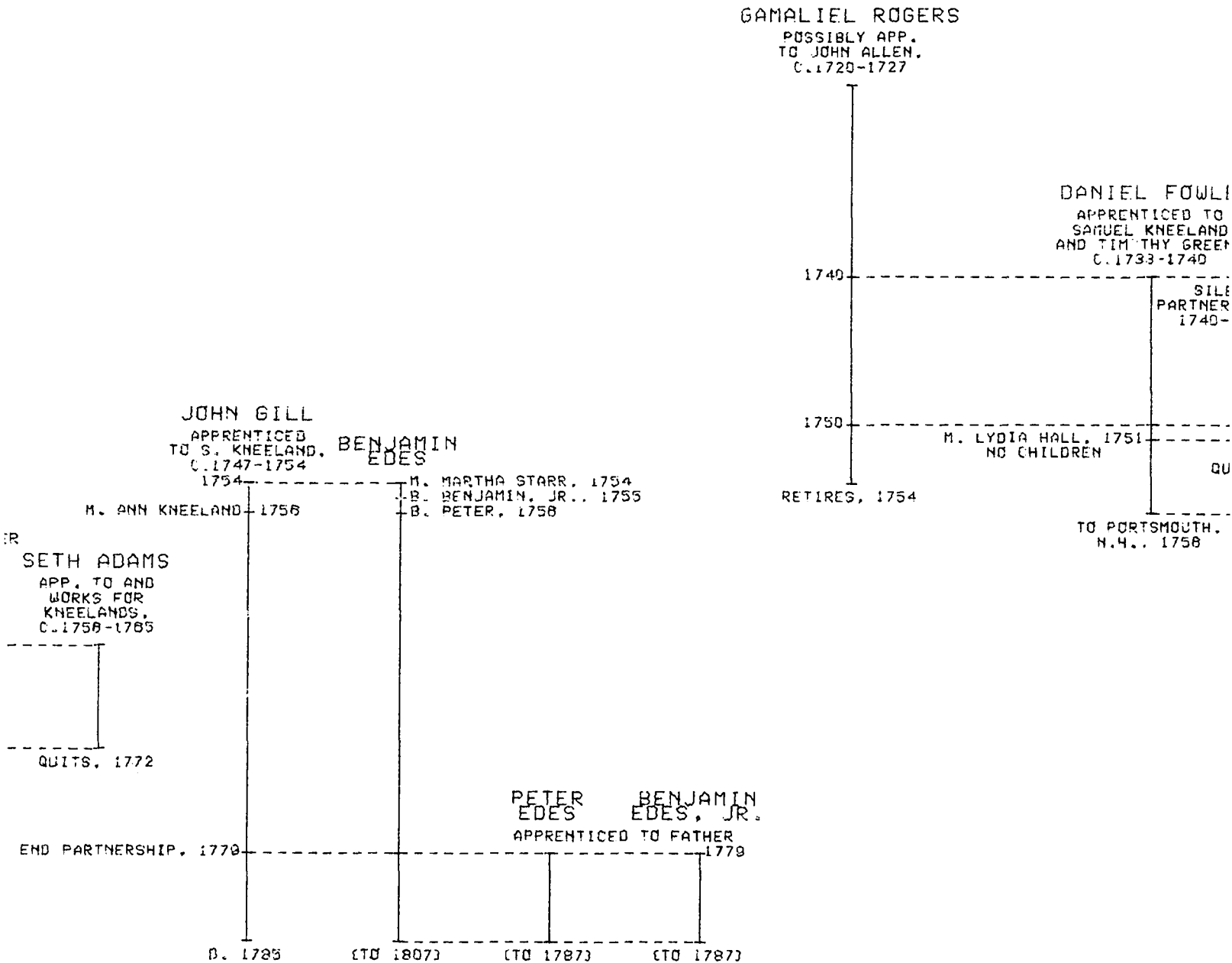
QUITS, 1775

QUITS, 1776

LOYALIST,
LEFT BOSTON, 1777

END PARTNERSHIP, 1777

IN BOSTON, 1700-1783



THOMAS FLEET, SR

FROM ENGLAND. 1712

1713- THOMAS

1714- THOMAS
H. ELIZ. GOOSE. 1715

1718- FA

1732- B. THOMAS

1734- B. JOHN

DANIEL FOWLE
APPRENTICED TO
SAMUEL KNEEL AND
AND TIMOTHY GREEN. COHASSET
C. 1723-1740

JOHN
FOWLE
MINISTER

SILENT
PARTNERSHIP.
1740-1750

ZECHARIAH
FOWLE, I
APP. TO BROTHER.
DANIEL FOWLE.
1740-1750

BENJAMIN
MECOM

APP. TO J. PARKER
IN NEW YORK.
1742-1752
IN ANIGUA.
1752-1757

M. LYDIA HALL. 1751
NO CHILDREN

QUASI-PARTNERSHIP
1751-1756

TO PORTSMOUTH.
N.H., 1756

1757

PRINTS WITH
SAMUEL DRAPER
1758-1782

1782

POSSIBLE
PARTNERSHIP.
1757-1782

TO NEW YORK. 1782
ISAIAH THOMAS
APP. TO Z. FOWLE,
1756-1788
JOURNEYMAN PRINTER.
1788-1770

1770

QUITS. 1771
PROBABLY MOVES
TO PORTSMOUTH. N.H.

1771

TO WORCESTER. 1775

D. 1758

RS

THOMAS FLEET, SR.

FROM ENGLAND, 1712

1713
1714 | --- THOMAS CRUMP
M. ELIZ. GOOSE, 1715 |
1718 | --- FATE UNKNOWN

1732 | B. THOMAS JR.
1734 | B. JOHN

BENJAMIN
MECOM
APP. TO J. PARKER
IN NEW YORK.
1742-1752
IN AN'IGUA,
1752-1757

POSSIBLE
PARTNERSHIP,
1757-1762

TO NEW YORK, 1762
ISAAH THOMAS
APP. TO Z. FOWLE,
1756-1766
JOURNEYMAN PRINTER,
1766-1770

1771
TO WORCESTER, 1775

JOHN FLEET THOMAS FLEET
APPRENTICED TO FATHER

D. 1758

1758

(TO 1803)

(TO 1797)

ISAAH
FOWLE,
1750

1771
MOVES
TO N.H.

BIBLIOGRAPHIC NOTE

The literature on the early American press is large and the issues addressed diverse. Most of the questions posed by the present study lie outside the realm of traditional scholarship and involve an examination of the actual extant record of printing in the colonial years. The basic sources for the two major types of evidence employed -- the imprints of the period and the collective biography of tradesmen -- are discussed at length in Appendix 1. The reader interested in a full discussion is directed there.

The major sources of information on the record of printing are Charles Evans, American Bibliography, 14 vols. (Chicago and Worcester, Mass., 1903-1959); Roger F. Bristol, Supplement to Charles Evans' American Bibliography (Charlottesville, Vir., 1970), and Clifford K. Shipton and James E. Mooney, National Index of American Imprints through 1800: The Short-Title Evans, 2 vols. (Worcester, Mass., 1969). Shipton and Mooney's Short-Title Evans is itself a guide to the American Antiquarian Society's microcard edition of Early American Imprints, a collection of all extant pre-1800 imprints. Supplementing these three sources are "American Bibliographic Notes," published occasionally by the American Antiquarian Society in its Proceedings.

Marcus A. McCorsion, Vermont Imprints, 1777-1820 (Worcester, 1963), and C. William Miller, Benjamin Franklin's Philadelphia Printing, 1728-1766 (Philadelphia, 1974) are models of bibliographic work not to be overlooked. The best bibliography of colonial newspapers is Clarence S. Brigham's History and Bibliography of American Newspapers, 1690-1820, 2 vols. (Worcester, Mass., 1947). The strengths, weaknesses, and variety of information contained in each of these sources are thoroughly treated in Appendix 1.

A biographical focus marks much of the older work on the colonial press, and has allowed the collective biography of tradesmen to be done. The principal source, and one which is discussed in Appendix 1, is the American Antiquarian Society's "Printers File," a collection of biographical information compiled over the course of forty years on all printers, publishers, and booksellers active in Anglo-America prior to 1800. The sources of the information contained in the Printers File include all the standard secondary sources -- much too numerous to mention individually, but contained in G. Thomas Tanselle's Guide to the Study of United States Imprints 2 vols. (Cambridge, Mass., 1969) -- the immense genealogical, imprint, and newspaper holdings of the Society, and a wide range of public records. A detailed listing of the sources is available at the Society in its "Authorities File."

Personal records of tradesmen, with one obvious exception, are limited. The American Antiquarian Society's Isaiah Thomas Papers and Book Trades Collection contain most of the available material relating to the period before 1783. The Book Trades Collection, itself, contains copies of materials from other manuscript collections. The obvious exception to the scarcity of personal records is Benjamin Franklin, and Leonard L. Lataree and William B. Willcox, et al., eds., The Papers of Benjamin Franklin (New Haven, Conn., 1959-), and Leonard L. Lataree, ed., The Autobiography of Benjamin Franklin (New Haven, 1964) are required reading.

Of the older literature on the early American press Lawrence C. Wroth, The Colonial Printer, rev. edn. (Portland, Me., 1938), and Douglas C. McMurtrie, A History of Printing in the United States (New York, 1936), are still of nearly incalculable value, as is Isaiah Thomas, The History of Printing in America, 2nd edn., Marcus A. McCorsion, ed. (1874: New York, 1970). John Tebbel, A History of Book Publishing in the United States, vcl. 1 (New York, 1972) condenses much recent work. The issues which historians of the colonial press are addressing currently are not easily classified. Fundamentally, they view the press primarily as a vehicle of political expression, and the pervasiveness of this issue is discussed in Chapter 1.

When historians have departed from this traditional concern, they have tended to view the printer as an entrepreneurial figure working under a variety of social, economic and political conditions. The most notable examples of this work, which often combine the concerns of contemporary colonial social history with the more traditional political focus, are Rollo G. Silver, "Aprons Instead of Uniforms: The Practice of Printing, 1776-1787," Proceedings of the American Antiquarian Society, LXXXVII (1977), 111-94; Mary Ann Yodelis, "Who Paid the Piper? Publishing Economics in Boston, 1763-1775," Journalism Monographs, No. 38 (1975); Stephen Botein, "'Meer Mechanics' and an Open Press: The Business and Political Strategies of Colonial American Printers," Perspectives in American History, IX (1975), 127-225; J. A. Leo Lemay, Men of Letters in Colonial Maryland (Knoxville, Tenn., 1972), esp., 111-25, 193-212; and Bernard Bailyn and John B. Hench, eds., The Press and the American Revolution (Worcester, 1980).

Work on European publishing and the cultural context of printing is extremely pertinent for historians of the early American press for it adds a variety of potentially fruitful questions. Robert Darnton, The Business of the Enlightenment: A Publishing History of the Encyclopedie, 1775-1800 (Cambridge, Mass., 1979); Natalie Zemon Davis, "Printing and the People," in Davis, Society and Culture in

Early Modern France (Stanford, 1975), 189-226; Elizabeth L. Eisenstein, The Printing Press as an Agent of Social Change, 2 vols. (Cambridge, 1979), represent the best of this work. David D. Hall, "The World of Print and Collective Mentality in Seventeenth-Century New England," in John Higham and Paul K. Conkin, eds., New Directions in American Intellectual History (Baltimore, 1979), 166-80, has explored some of the questions posed by European scholars in Anglo-America.

Historians are never satisfied with what they know about any particular subject, but the early American press is one area which is essentially wide open. No interpretive paradigm exists and no one or two issues currently occupy the attention of scholars to the exclusion of all others. And it is safe to say that the press remains one of the least understood areas of the colonial past.