

## A Census of Print Runs for Fifteenth-Century Books

Many historians seeking to measure the impact of the ‘printing revolution’ in fifteenth-century Europe have taken a quantitative approach, multiplying the total of all editions by the number of copies in a typical edition. However, whereas the *Incunable Short Title Catalog* (ISTC) lists more than 28,000 fifteenth-century editions that are represented by surviving specimens, the number of lost editions will always remain indeterminate.<sup>1</sup> The second factor in the equation – the typical or ‘average’ fifteenth-century print run – is just as indeterminate as the first, if not more so. Inevitably, the ‘editions × copies’ formula has produced estimates of fifteenth-century press production that range anywhere from eight million to more than twenty million pieces of reading material.<sup>2</sup> Such irreconcilable results (in which the margin for error may be larger than the answer itself) only serve to demonstrate that any effort to arrive at a meaningful quantification of fifteenth-century press production will require a much more systematic analysis of the available data on print runs. The present study, a census of print runs for fifteenth-century books, takes a step in that direction by asking a much more basic question: what is the available data?

### The Problem

In a typical example of the quantitative approach to the readership of one fifteenth-century text, Frederick R. Goff once demonstrated the popularity of the *Postilla super epistolas et evangelia* by Guillelmus Parisiensis by noting that more than 100 editions of this text were published from 1472 to 1500. To amplify the point, Goff added that “if the average number of copies printed in each edition was four hundred, not an unreasonable assumption, this would mean that more than 40,000 copies were placed in circulation during the last twenty-eight years of the century.”<sup>3</sup> Although there is no need to question whether Goff’s estimate of 400 copies per edition was reasonable, it is well worth asking what would happen if the average were another reasonable figure, say 300 copies. The total published then would be closer to 30,000 copies, and some ten thousand putative incunables would vanish from history. Of course, our computations could take us in the opposite direction, as well, inferring thousands of incunables and readers that may never have existed. In either case, there is the danger of false precision: whereas Goff merely sought to convey a reasonable picture of the situation, a more recent scholar, positing universal production norms of 350 copies in the 1470s, 500 copies in the 1480s, 700

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<sup>1</sup> The best historical overview of the problem is Paul Needham, “Counting Incunables: The IISTC CD-ROM,” *Huntington Library Quarterly* 61, nos. 3 and 4 (2000), 456-529.

<sup>2</sup> An insightful introduction to these calculations is Joseph A. Dane, *The Myth of Print Culture. Essays on Evidence, Textuality, and Bibliographical Method* (Toronto: University of Toronto Press, 2003), 32-56. Carl Wehmer, “Zur Beurteilung des Methodenstreits in der Inkunabelkunde,” *Gutenberg-Jahrbuch* (1933), 281-82, proposed an average print run of 200 copies and a minimum of 30,000 editions of books; Geldner’s articles on German liturgical printing are major sources of data on print runs. Rudolf Hirsch, *Printing, Selling and Reading, 1450–1550* (Wiesbaden: Otto Harrassowitz, 1967), 15, note 9, and 105, calculated 40,000 books and broadsides “at the low average of 250 copies per title,” resulting in ten million or more items. A more ‘precise’ tally appeared in John M. Lenhart, *Pre-Reformation Printed Books: A Study in Statistical and Applied Bibliography*. *Franciscan Studies* 14 (New York: J. F. Wagner, 1935), 9-10, which calculated 40,095 editions comprising 20,047,000 incunables.

<sup>3</sup> Frederick Goff, “The *Postilla* of Guillelmus Parisiensis,” *Gutenberg-Jahrbuch* (1959), 73-78.

copies in the 1490s, and the round figure of 1,000 by 1500, has calculated the fifteenth-century circulation of Guillermus' *Postilla* down to the 58,750<sup>th</sup> copy – this despite the fact that we lack direct evidence for the print runs of any of the *Postilla* editions.<sup>4</sup>

Historically, as several scholars have conceded, our knowledge of early print runs has been lamentably poor.<sup>5</sup> However, this is not because data does not exist – the print runs of fifteenth-century books currently number more than 250 editions – but because the data has remained so unavailingly scattered throughout a vast literature dedicated to other questions. Consequently, even well-informed specialists have been able to call forth only a few familiar examples, such as the 37 fairly uniform print runs publicized in 1472 by Conradus Sweynheym and Arnoldus Pannartz at Rome,<sup>6</sup> the seventeen print runs (including a spurious *Breviarium*) canonized in Konrad Haebler's essential *Handbuch der Inkunabelkunde*,<sup>7</sup> or the 33 print runs recorded in the *Diario* of the Florentine press at San Jacopo di Ripoli (1476-1484).<sup>8</sup> In 1998, however, the first truly extensive catalogue of fifteenth-century print runs, moving beyond the usual suspects, was compiled by Uwe Neddermeyer. Unfortunately, his table of “*bekannte Auflagenhöhen*” (known print runs) for the fifteenth century actually includes an undifferentiated mix of about 130 true print runs as well as several dozen inconclusive, speculative, or spurious entries.<sup>9</sup> Therefore, because Neddermeyer's list is not accompanied by the original documentation, one has to perform considerable research simply to verify which fraction of his data is truly useful.<sup>10</sup> In contrast, each of the 250+ print runs listed in the present CERL-based census has been included on the basis of contemporary documentation. It is hoped that in the near future we will be able to provide transcriptions of these primary sources and citations of secondary literature for virtually all of the census entries.

## The Nature of the Evidence and its Limitations

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<sup>4</sup> Uwe Neddermeyer, *Von der Handschrift zum gedruckten Buch* (Wiesbaden: Harassowitz Verlag, 1998), I, 470, table 25b.

<sup>5</sup> Tilo Brandis, “Handschriften- und Buchproduktion im 15. und frühen 16. Jahrhundert,” in: *Literatur und Laienbildung im Spätmittelalter und in der Reformationszeit: Symposium Wolfenbüttel 1981*. Ludger Grenzmann and Karl Stackmann, eds. (Stuttgart: Metzler, 1984), 186: “Sehr schlecht steht es um die Kenntnisse der Auflagenhöhen der frühen Drucke.”

<sup>6</sup> ISTC in00131000; see more below.

<sup>7</sup> Konrad Haebler, *The Study of Incunabula*. Translated from the German by Lucy Eugenia Osborne with a Foreword by Alfred W. Pollard (New York: The Grolier Club, 1933), 172-75, originally published as *Handbuch der Inkunabelkunde* (1925). The *Breviarium* supposedly was printed in 1,500 copies at Venice by Matteo Capcasa in 1491, but ISTC does not list a Breviary from Capcasa's press.

<sup>8</sup> Melissa Conway, *The Diario of the Printing Press of San Jacopo di Ripoli 1476-1484: Commentary and Transcription* (Florence: Leo S. Olschki, 1999). The *Diario* documents 37 different print runs that were produced either on commission or as independent commercial ventures, and provides a unique contemporary record of the printing shop's paper supplies, presswork, expenses, and prices, as well as 294 entries for the consignment of more than 3,500 copies of books and broadsides with local stationers, booksellers, and illuminators.

<sup>9</sup> Neddermeyer, *Von der Handschrift zum gedruckten Buch*, I, 127-36, and II, 752-62, table IV.

<sup>10</sup> For example, Neddermeyer, *Von der Handschrift zum gedruckten Buch*, II, 754-55, asserts without documentation that the Paris press of Kranz and Gering printed four editions of 200 copies in 1472; the first of these seems to be based on a mistaken *Gesamtkatalog der Wiegendrucke* number, and it appears that none of them can be verified.

A chief source of fifteenth-century print runs is the colophons and prefatory statements printed within the books themselves. As a rule, such statements boast that the books had been produced in nice round numbers, most often by the hundreds or by the thousands, despite what a printer's practical considerations (such as demand) might have dictated in reality. Indeed, more than a few internal statements of print runs cannot be considered reliable. Some of the claims smack of hyperbole, while others likely were meant simply as expressions of abundance, importance, or praise for assiduous work. In one highly suspect example, the *Moralia in Job* of Gregory I, printed at Paris by Ulrich Gering and Berthold Rembolt (31 October 1495), the Bishop of Brescia's preface claimed that three men labored for three months to print 300 copies of this work.<sup>11</sup> The complication here is that exactly the same statement had appeared in the edition of the same text printed at Venice by Reynaldus de Novimagio in 1480, and it had originated in the edition printed at Rome by Vitus Puecher in 1475. Clearly, one should not expect that three Frenchmen in 1495 set out to duplicate the Roman printing feats recorded by the Bishop of Brescia twenty years earlier, nor that the two subsequent editions likewise numbered exactly 300 copies. Although the print runs provided in some fifteenth-century sources are suspect, as long as they purport to describe the whole edition we cannot rightly ignore or discount them, as none of these claims is demonstrably *incorrect*. Whereas a printer might have exaggerated the number of copies available from his press for a variety of reasons, such as to discourage rival printers from pirating his work, even these unreliable statements have historical value.

By far the best-known example of a printer's statement of fifteenth-century print runs is the petition for financial support that Johannes Andrea Bussi, Bishop of Aleria, addressed to Sixtus IV in 1472 on behalf of the early printers at Subiaco and Rome, Sweynheim and Pannartz. Published in the fifth volume of their edition of Nicolaus de Lyra's *Postilla super totam Bibliam* (13 March 1472), it enumerated 37 print runs that their press had produced since 1465. However, several scholars have suspected that Sweynheim and Pannartz did not, in fact, print 33 editions in runs of exactly 275 copies and four more of exactly 300 copies (totalling 12,475 books), when their increasingly ponderous stock of unsold copies at the Palazzo Massimo should have taught them the importance of better calculating the various potential markets for specific titles.<sup>12</sup> Indeed, a letter sent from the Subiaco monastery to its affiliated house in Melk in 1471 recalled that the *editio princeps* of Augustine's *De Civitate Dei* printed in 1467 had consisted of 200 copies, although the papal petition of 1472 would claim a figure of 275 copies.<sup>13</sup> Similarly, in 1468 Gaspare

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<sup>11</sup> ISTC ig00431000: "Placuit...deo his nostris temporibus novam facillima esset scriptio librorum, adeo ut a tribus hominibus solum tres menses laborantibus per impressionem formata sint horum moralium trecenta volumina."

<sup>12</sup> Edwin Hall, *Sweynheim & Pannartz and the Origins of Printing in Italy* (McMinnville, OR: Bird & Bull Press for Phillip J. Pirages, 1991), 19, note 8; Rudolf Hirsch, "The Size of Editions of Books Produced by Sweynheim and Pannartz between 1465 and 1471," *Gutenberg-Jahrbuch* (1957), 46-47.

<sup>13</sup> The letter from the monk Benedict Zwink of Ettal to the Abbot of Göttweig (near Melk) concerns the possibility of printing a Benedictine Breviary at Subiaco, "sicut et nos scripsimus ducenta volumina sancti Augustini De Civitate Dei." See Barbara Frank, "Tipografia monastica sublacense par una confederazione benedettina," *Il Sacro Speco* 74 (1971), 69-72; Gabriele Paolo Carosi, *Da Magonza a Subiaco: l'introduzione della stampa in Italia* (Busto Arsizio: Bramante, 1982), 49.

da Verona wrote that Sweynheym and Pannartz had printed 200 copies of the *Opera* of Lactantius (1468) within a single month.<sup>14</sup>

Contracts and other legal documents form another important body of evidence for fifteenth-century print runs. These sources are generally more reliable than colophons, dedications, or other printed statements. Contracts constituted legal agreements to deliver actual totals of copies tied to real costs and conditions. We may assume that only under highly unusual circumstances would a contract or receipt provide a figure that was not very close to the total number of copies actually printed. In the contract for an edition of Apuleius' "Golden Ass" (Bologna: Benedictus Hectoris, 1 August 1500), Philippus Beroaldus even specified that the printer should produce an over-run of 50 copies with which to perfect any defective copies among the 1,200 copies required by the contract.<sup>15</sup> Somewhat surprisingly, contracts for printing commissions often insisted on nice round numbers of copies just like those so often claimed in colophons and dedications, although more 'practical' totals like 215, 497, or 930 copies do occur. Notable in this regard is the case in which Nicolaus Spindeler contracted on 7 August 1489 to print 400 copies of the popular Catalan romance *Tirant lo Blanch* at Valencia, but due to unforeseen demand a second contract of 28 September 1489 increased the edition to 715 copies (four of them survive).<sup>16</sup> Fortunately, objective documents such as contracts, receipts, and notarial records constitute the healthy majority of fifteenth-century statements of print runs.

After the Sweynheym and Pannartz list and the *Diario* of the San Jacopo di Ripoli press, the next largest composite record of fifteenth-century print runs is that of the Benedictine monastery of Nuestra Señora de Montserrat, which employed Johannes Luschnier from February 1499 to November 1500 for the printing of fourteen editions of books and at least five editions of broadside indulgences. The monastery's accounts provide specific print runs for each of these books, totaling 7,291 copies, and mention five editions of indulgences for the living and the dead in Latin and Catalan that totaled 142,950 "*bulas*

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<sup>14</sup> Gaspare da Verona wrote that the printers produced 200 copies within one month: "Hac tempestate sanctissima Romam quidam iuvenes accesserunt et ii quidem Teutonici, qui Lactantium Firmianum De hominis opificio, De Dei ira, necnon Contra Gentiles mense uno formaverunt, et ducentos [200] huiusmodi libros quoque mense efficiebant." See G. Zippel, "Le Vite di Paolo II di Gaspare da Verona e Michele Canensi," in: *Rerum Italicarum Scriptores*, n.s. 3-16 (1904-1911), 57; Massimo Miglio, ed., *Giovanni Andrea Bussi. Prefazioni alle edizioni di Sweynheym e Pannartz prototipografi Romani* (Rome: Polifilo, 1978), xxvii.

<sup>15</sup> ISTC ia00938000. According to the contract of 22 May 1499, Beroaldus provided the paper, the copy, proofreading and correction, and promised to promote the edition during his lectures on the text at Bologna University. This document was cited but not transcribed in Albano Sorbelli, *Storia, della stampa in Bologna* (Bologna: Zanichelli, 1929), 61, citing the original in the "Archivio notarile di Bologna, atti del notaio Agostino Landi, 22 May 1499." It would be tremendously useful if a local scholar would help us publish the original text here.

<sup>16</sup> ISTC it00380000. *Tirant lo Blanch*. Valencia: [Nicolaus Spindeler and Johann Rosembach?, for Hans Rix], 20 November 1490. For the second contract, see José Enrique Serrano y Morales, *Reseña histórica en forma de Diccionario de las imprentas que han existido en Valencia desde la introducción del arte tipográfico hasta el año 1868* (Valencia: F. Domenech, 1898-99), 528: "Et primo lo dit en Nicholau spindeler se obliga e promet al dit mjcer Johan rix de cura de obrar e fer setzens e quinze [715] volums de libres de tirant lo blanch en romans en lengua valencia los quals promet fer o obrar de continent en vna premsa e de continent que aura acabada altra premsa que fa fer de present abduy les premses [sic] promet obrar la dita obra continuament fins haia acabada la dita obra ab compliment."

*de vivos*” and 46,500 “*de difuntos*.”<sup>17</sup> For whatever reason, Spain was particularly adept at producing documented print runs that survive, trailing only Italy in this regard.<sup>18</sup>

The only known source of print runs for English incunables is a lawsuit brought by Richard Pynson concerning funds owed to him by the executors of John Rushe, who had financed the printing of several editions.<sup>19</sup> In this suit of c. 1509, Pynson enumerated the print runs of six editions that he had produced in London before Rushe’s death in 1498. Only three of these publications are known to exist: Henry Parker’s *Dives and Pauper* (5 July 1493), John Mirk’s *Liber festivalis* (1493), and Boccaccio’s *The falle of princes* (27 January 1494), each printed in 600 copies. The three other editions mentioned were 1,000 “Jornalles,” which may represent lost *Diurnal*ia; 600 “Masse bokys,” evidently produced prior to Pynson’s only surviving Sarum Missal, dated 10 January 1500;<sup>20</sup> and 600 “Great gylt Prymers,” which may correspond to the tallest of Pynson’s several editions of the Sarum Hours, a quarto edition datable to c. 1497.<sup>21</sup>

Often, we have contemporary indications of partial print runs, such as the fact that a few hundred copies from a larger edition were consigned to a bookseller. For example, a record kept by the notary Reichenbach of Reggio Emilia informs us that a minimum of 228 copies of Matteo Maria Boiardo’s *Orlando innamorato* existed on 13 May 1484; given that no copies survive, this lost edition otherwise would have gone unrecorded.<sup>22</sup> Such records of partial print runs are valuable in their own right, but because they do not provide the conclusive evidence of specific print runs that is necessary for our purposes, incomplete records like these are not included in the census; perhaps they could be included in a future version as an appendix.<sup>23</sup>

As the census will make immediately apparent, a large percentage of editions for which we know the print runs were produced to fulfill institutional functions: mainly they are Missals, Psalters, Breviaries, other liturgical or instructional texts, and other ‘official’ publications for church and state.<sup>24</sup> Remunerative and relatively risk-free for printers, the original commissions for projects such as these tended to end up in surviving archives, and they tended to afford very large editions. It should be noted, therefore, that the print runs known from such institutional commissions do not represent a normative cross-

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<sup>17</sup> Francisco Mendez, *Tipografía española* (Madrid: Imprenta de las Escuelas Pías, 1861), 171.

<sup>18</sup> Moreover, Spanish scholars have been especially helpful in uncovering their bibliographical heritage; for example, Madurell Marimón and Rubio y Balaguer, eds., *Documentos para la Historia de la Imprenta y Librería en Barcelona 1474-1553*, transcribed 21 contracts calling for specific print runs.

<sup>19</sup> Henry R. Plomer, “Two Lawsuits of Richard Pynson,” *The Library*. New series, no. 38, vol. X (April, 1909), 126.

<sup>20</sup> ISTD im00721550.

<sup>21</sup> ISTD ih00420700.

<sup>22</sup> GW 4607; not in ISTD.

<sup>23</sup> Several of Matteo Capcasa’s editions, printed in conjunction with Bernardinus Benalius, are attested in a fascinating document of 12 August 1491 that lists the numbers of copies remaining in stock; several of the editions must have exceeded 1,000 copies, including their *Dante*, which remained in 1,504 copies; see Bartolomeo Cecchetti, “Libri stampati nel Secolo XV da Matteo da Capcasa di Parma, socio di Bernardino de Benalio da Bergamo,” *Archivio Veneto* 30 (1885), 172-74.

<sup>24</sup> Ferdinand Geldner, *Inkunabelkunde. Elemente des Buch- und Bibliothekswesens V* (Wiesbaden: Ludwig Reichert Verlag, 1978), 155.

section of fifteenth-century press production, but rather a selection of large scale projects carried out with institutional funding and pressure to produce. As a group they almost certainly reflect higher-than-average print runs.

Whereas the average print run during the period dominated by the data from Sweynheim and Pannartz (1472) was in the vicinity of 275 to 300 copies, the documented production expanded to well over 500 copies per edition between 1473 and 1480; the average grew to nearly 570 copies during the 1480s and to more than 870 copies during the 1490s. This last decade's average was swelled considerably by a single truly monstrous print run, that of Johannes Breitenbach's *Consilium ad concessionem lacticiniorum pertinens* [Leipzig: Gregorius Böttiger (Werman), between 6 Dec. 1491 and 1 Aug. 1492], a fourteen-leaf quarto concerning the "Butterbrief" controversy, which was printed in an edition of 5,000 copies, virtually all of which were confiscated by Duke Georg of Saxony and the Bishop of Merseberg (the next-longest recorded print runs for fifteenth-century books are less than half this total).<sup>25</sup> Although the overall average print run for fifteenth-century books, based on this data, can be calculated at just under 600 copies, scholars are hereby warned that calculations of fifteenth-century press production based upon this sample are not statistically valid. The data set of 250+ print runs represents barely 1% of all incunables, and if one throws out a single outlier, the 5,000 confiscated Breitenbach quartos, then the average falls below 580 copies, etc. Moreover, the majority of the recorded print runs reflect the output not of the 'average' printing shop, but rather that of a few exceptionally successful publishers who received commissions from well-funded institutions. It is worth remembering that a documented print run may not be a representative print run. Therefore, this census of print runs is not intended to provide generalities for misleading extrapolations, but rather to offer data that is specific to 250+ particular editions.

## The Census

The census of print runs for fifteenth-century books a work in progress. Doubtless guilty of many omissions and perhaps more than a few errors, it attempts merely to provide a useful basis for future additions and refinements. With few exceptions the print runs listed here have been compiled from records already published elsewhere. Many were gleaned from prominent (one might say obvious) sources, including the introductions to the British Library's thirteen-volume incunable catalogue, whose compilers went out of their way to mention print runs and to cite earlier sources of the original documentation, even if their notes were never organized or indexed.<sup>26</sup> Other data emerged from a great variety of incunable catalogues, scholarly articles, and documentary anthologies, none of which have addressed print runs directly or in an organized manner.

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<sup>25</sup> ISTC ib01102000 (misspelling the word *lacticiniorum*) records three copies. For the print run and the "Butterbrief" controversy, see Christoph Volkmar, *Reform statt Reformation. Die Kirchenpolitik Herzog Georgs von Sachsen 1488-1525*. Spätmittelalter, Humanismus, Reformation, vol. 41 (Tübingen: Mohr Siebeck, 2008), 379-80. I thank Falk Eisermann for bringing this print run to my attention.

<sup>26</sup> *Catalogue of Books Printed in the XV<sup>th</sup> Century Now in the British Library*. 13 vols. (London: The British Museum, et al., 1908-2007).

In its current form the census is arranged by language-region (Germany/Switzerland, Italy, the Low Countries, France, Spain, Portugal, Scandinavia, and England). The printing locations in each region are listed in alphabetical order and the editions from each town are listed roughly in chronological order. Each entry provides the ISTC number of the edition (if applicable), its format, author, title, imprint, and the documented print run preceded by a keyword indicating the nature of our evidence for the print run:

“S&P” = 1472 Sweynheym and Pannartz list

“Dia” = *Diario* of San Jacopo di Ripoli

“Col” = colophon

“Pre” = preface or dedication, etc.

“Doc” = contract, commission, or notarial record, etc.

The census does not currently include broadsides; for the print runs of dozens of broadsides, which were sometimes amazingly large, see the essential works by Falk Eisermann.<sup>27</sup> Scholars with specific research needs will note that the compiler has also gathered and transcribed the original documentation for 80% of the 250+ print runs; this work is ongoing, and additional leads are currently undergoing further research. It is hoped that in a future version of this census the entirety of the original documentation can be included along with citations of secondary literature. In the meantime, queries, corrections, additions, and suggestions for improvements are most welcome at [ewhite@smu.edu](mailto:ewhite@smu.edu).

Throughout the creation of this census – mainly using the resources of Bridwell Library after hours – several colleagues, principally Paul Needham, Falk Eisermann, and John Goldfinch, kindly shared their discoveries and suggested still other documentary leads. David Shaw was the first to encourage this research and to suggest its publication in an on-line format that could be updated. My special thanks go to Cristina Dondi and her helpful colleagues at CERL. Professor Dondi encouraged my project from the moment she first heard of it (during a delicious dinner at her home) and has devoted great energy to its publication in this format.

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<sup>27</sup> Falk Eisermann, *Verzeichnis der typographischen Einblattdrucke des 15. Jahrhunderts im Heiligen Römischen Reich Deutscher Nation. VE 15*. 3 vols. (Wiesbaden: Reichert Verlag 2004); see especially his “Auflagenhöhen von Einblattgedrucken im 15. und frühen 16. Jahrhundert,” in: Volker Honnemann, Sabine Griese, F. Eisermann, and Marcus Ostermann, eds., *Einblattdrucke des 15. und frühen 16. Jahrhunderts. Probleme, Perspektiven, Fallstudien* (Tübingen: Max Niemeyer, 2000), 143-77.