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Time and the Academic Librarian

Jeanne M. Brown, Head, Architecture Studies Library, University of Nevada, Las Vegas

Abstract: For academic librarians to balance time requirements for research, service and job duties they need a keen sense of where their time is allocated. Although the literature gives some idea of average time allocated, a more detailed view is obtained through examination of one librarian’s seven-year accumulation of daily time logs. The log as a method for achieving balance and the goal of balance itself are explored.

Introduction

One of the drawbacks of faculty status for many librarians is the requirement for research and publication, as well as for service on national and regional committees. While the controversy rages most hotly on the issue of research, the time necessary to do committee work has also come in for its share of criticism. Do academic librarians have enough time to perform both the research and the service required by many positions at institutions granting librarians faculty status? Opinions yea and nay are easily found, and often passionately espoused.

John Newman, in a “The Way I See It” piece in *C&RL News* states baldly that “we can find more time for research by using less time talking to each other – both in library meetings and at professional gatherings.”¹ Others such as Cosgriff, Kenney, and
McMillan complain that without released time, and given the “typical 12-month contract,” librarians just cannot be expected to do research.² Larry Oberg on the other hand notes that “the traditional arguments against faculty status” including the one that “librarians … do not have enough time to do research, serve on committees, etc.” are “specious.”³

For some the argument revolves around the structure of the time we have. Several articles find that “the rigidity of work schedules in libraries often makes it difficult for library faculty to find the concentrated time believed necessary to conduct research” (articles cited by Kenny, Tietjen and Witthus).⁴ However while some may believe blocks of time are necessary, others do not. Boice’s study of released time for non-librarian faculty concluded that “… participants were more productive in the brief, daily regimen…” of 30 minutes to one hour.⁵ Black and Leysen maintain that for academic librarians “time for performing research and service should be structured into the work day just as time for cataloging and service to the institution and the profession is provided.”⁶ They go on to ask, “how can you be released from something that is integral to your assignment?”⁷

Arguments about time are certainly heard frequently enough, both in print and from colleagues. The real issue is not whether we have *enough* time – none of us ever has enough! The crux of the problem is how we allocate our time. For many librarians the last place it is allocated is for research and writing.

**Why Keep Track**
Time studies have been undertaken for a variety of purposes and with a variety of results. Ferguson and Taylor undertook to justify personnel and their allocation or reallocation and to see if time spent matched the goals of the library.\(^8\) Gothberg used a time survey to determine the amount of time spent on management activities and on time wasters.\(^9\) Boice, Scepanski and Wilson looked at amounts of uninterrupted time needed to do research, in order to support the idea that librarians have time to engage in scholarship.\(^10\) Some studies such as those by Everhart, and by Ferguson and Taylor, have documented how much personal time we take on the job.\(^11\) Roberts focused on how much clerical work librarians do.\(^12\)

The most basic reason to study the time we spend is so that we know where it goes. Our own observations of our time can result in change by helping us become aware of the time we waste chatting or in meetings, draw attention to hours spent on collection development versus instruction, highlight the percentage of time allocated to research and to service, etc. Fairchild, in “Development and Utilization of a Faculty Time Analysis System,” is confident that time data can be used to modify time expenditures.\(^13\) He notes that time analysis “encourages faculty to be more professionally accountable.”\(^14\)

**Methods of Monitoring and Reporting Time**

There are several methods for monitoring time, including logs, questionnaires, and random alarm mechanisms. Logs as the means of collecting the data were used by Ferguson and Taylor, Hitchingham, and Boice, Scepanski and Wilson.\(^15\) Fairchild notes
that “as early as 1955, Ohlsen was recommending the use of a daily log….”

Some studies identified the log per se as useful for time management. Mauro and Weber mention that “Alex Mackenzie, time management expert, suggests that individuals begin efforts to improve time use by keeping a daily log of how their time is being used….”

They also note that “the results of such a log are often very surprising to the individual.” Boice, Scepanski and Wilson agree, stating that “most participants reported that maintaining verified self-reports on a daily basis led to very different accounts of workweeks than they had previously thought or reported in other surveys.”

Estimates of time self-reported through questionnaires (the method used by Gothberg and Riggs, Schreiner-Robles and Germann, and Hart) is brought into some question by the studies above that found participants so surprised with the results of their daily logs.

Estimates in response to a questionnaire can easily, inadvertently, overestimate how much time is spent on desirable activities, or even total hours worked. Sullivan notes that both the log and the questionnaire collect self-reported data, and therefore both are subject to bias. However, he concludes that the log has the advantage in that “no reliance need to be placed on memory or on an individual’s ability to estimate average time expenditure.”

Sampling using random alarm mechanisms, a technique used by Everhart and by Roberts, is yet another method. Judging by the findings of Schreiner-Robles and Germann that the activities of librarians changed in the summer, sampling effectiveness would be affected by the period sampled. One hypothesizes that the less repetitious the
activities, the more likely sampling effectiveness would be compromised unless the study was conducted over an extensive period.

**Who Knows Where the Time Goes**

While we are convinced we do not have enough time – and certainly not enough for research and service in addition to our “job” duties – we actually have very little concrete idea of where our time is allocated. There are relatively few studies in the library literature which report the number of hours we spend on various parts of our jobs, and even fewer that report time spent on research and service. Those that do report hours are often difficult to compare. Studies have not looked at the same tasks, have not categorized tasks in the same way, or have presented results that cannot be easily compared because of how they are cumulated or reported.

Ferguson and Taylor (1980) collected data through logs kept by four types of academic librarians (subject specialists, documents librarians, general reference librarians, and reserves librarians) on five days scattered over a six-week period. Research time was reported under the broad category “Professional Development” in which is listed such activities as “Research & Writing,” “Creating Extended Bibliographies for Publication” and “Teaching & Preparing for Class.” Research time ranged from 0 to 8.7% of a 40-hour workweek without bibliographies and 0 to 22% if bibliographies are included in the definition of research. Time spent on service is not clearly delineated. Possible service categories in their study are “Library Committee Meetings,” “Other Formal Meetings,” “Attending Professional Meetings.” These could be variously categorized as job-related,
service or continuing education. The totals from these three categories within “Meetings” range from 3.9% to 22% depending on the librarian.26

For Hitchingham (1986), collecting data through logs over a seven-day period, “Scholarship” includes “work toward an additional master’s or other advanced degree” as well as presentations and publications, although these sub-areas are not calculated separately. Service is defined as university or external committees. Although she does have a separate category for library committees, they are defined as a library function, dealing with “library operations [that] do not fit into one of the normal functional areas, for example, a special group set up for space utilization decisions … or a search committee.”27 There is no mention of library faculty committees (such as a Bylaws Committee) although librarians at the institution where the study took place do have faculty rank. Given that some of the time reported for library committees may fall into service, the range of possible service time is 13.9% per week (university and external committees only) to 21.4% (university and external plus library committees).28 The first figure may underestimate the total service time; the second may overestimate it.

There is another complication in interpreting and using her data: the percentages are based on aggregate totals for all librarians in the study. The twelve librarians in the study worked 533.3 hours for the week. The percentages of time allocated to job, service and scholarship are based on total hours: 72.6% allocated to Library Function, 13.9% to University and External Committees, and 13.5% to Scholarship. The range of hours varies substantially however. She reports that “total hours ranged from 32 - 56 hours for
the librarians participating.” “Library function ranged from 18 – 46 hours; service from 0 to 20.5 hours; and scholarship from 0 to 20.5 hours.” Range of percentages is not given for the individuals in the study. So, although it is obvious that for some 0% of time was allocated to service or scholarship (or perhaps both), percentages for service and scholarship could be more than 50% for a single person if they worked 40 hours a week or less. Looking at aggregate numbers and percentages, she notes that “the balance between library responsibilities, service and scholarship commitments approximates the weight assigned in annual and reappointment reviews.” Looking at individuals, however, “the key characterization was variation.” Since this study covered only one week this should not be surprising, considering the potential impact of publication deadlines or specific committee projects.

Schreiner-Robles and Germann’s 1989 survey of reference-bibliographers at medium-sized academic libraries specifies Research as a discrete category. For service however there are five separate categories: National Committees, State/Region Committees, University Committees, Library Committees, and Community Service. The librarians in this study reported “official” 35- to 40-hour workweeks, but data on actual hours worked per week is not given. The data is reported for various activities, noting average hours worked for that category per week and the number of respondents who reported having spent any hours in that category. In order to calculate an average comparable to those in the studies discussed above, which would include all 54 respondents and not just those who reported hours in a category, I multiplied the average hours in the chart by the number of those reporting at least some hours, then divided by the total number of survey respondents. This revised average was used to calculate a percentage based on a 40-hour
week, which of course is also just an assumption. For research then, librarians worked 3.8 hours per week on average (9.5%). For service, I calculate 5.1 hours per week on average (12.8%). If librarians spending no time on research are eliminated from the calculation, eliminating the impact of the zero hours end of the range, the average for research increases to 13.3% of the workweek.

In a recent 1999 survey by Richard Hart of the Penn State librarians’ research activity, librarians reported spending from two to more than 30 hours per month on research (12% of the librarians reported more than 30 hours, but the number of hours was not contained in the article). There is no calculation of the percentage of time this represents of hours worked per month. For the purpose of comparison, I have calculated the percentage based on 30 hours per month maximum spent on research, a 40-hour week, and four weeks in a month. This results in 1% - 19% of a librarian’s time being spent in research. Hart reports that “on average, the librarians spend 19.8 hours per month on their research” – 12.4%.32

Brown and Harrison’s 1992 study of Nevada academic librarians’ service time found that librarians self-reported through a questionnaire from 0 to 40 hours per month spent on committee work. In the aggregate, these hours “constitute only 7% of a total work week (presuming a forty-hour work week).”33

[TABLE 1]

It is interesting to compare these figures with studies of non-librarian faculty, based on self-reported survey data. Bellas and Toutkoushian, using 1993 National Center for
Educational Statistics data, found 15.5% of faculty time spent in research and 6.3% spent in service. Total hours worked range from 41.2 to 48.7, depending on the definition of work.\textsuperscript{34} Jordan and Layzell report a study of 2,580 faculty, working an average of 56.3 hours per week, spending 33\% of time on research, 14\% on “institutional service and administrative duties,” and 6\% on “public service.”\textsuperscript{35} A 1998-99 survey “Faculty Attitudes and Characteristics” reported in the \textit{Chronicle of Higher Education} collected data on the proportion of faculty spending a certain number of hours on various activities. Twenty-five percent of faculty report spending no time on research, whereas only 7\% report no time on committee work and meetings. Thirty percent spend 1-4 hours on research, 17\% 5-8 hours, 11\% 9-12 hours, and downward from there. Sixty-six percent spend 1-4 hours on service, 21\% 5-8 hours, and then dramatically fewer.\textsuperscript{36}

Although the studies of librarians’ allocation of time constitute a rather small pool of data, and lack of consistent reporting makes comparison difficult, tentative observations can be made. Average time spent by librarians in research and service – based on the studies reported in the literature – are consistently between 6\% and 14\%. Specifically, research time ranges from 6\% to 13.5\%, and service ranges from 7\% to 13.9\%, on average. However averages are especially misleading here, given that the data also shows substantial variation amongst individuals in the amount of time spent on research and service. This is particularly dramatic since the minimum in each category is zero. It is impossible from the data reported to get a fleshe\-out picture of the individual’s time allocation patterns, although it is clear that zero hours for both service and scholarship is the low side of the range.
Individual Data

Given this context, that the amount of time spent on research and service is highly variable depending on the individual, it is necessary to turn our attention to the individual’s allocation of time in order to expand our perception of time and the academic librarian. The following is an in-depth report of time spent by one academic librarian over a period of seven years. Issues, observations, and advantages of the method are discussed.

When hired at my current position in 1991 I had been a librarian for eighteen years. However this was only the second job I had had that was tenure-track, the first being just after graduation and lasting for two years. Apprehensive is perhaps too gentle a word to describe how I felt as I contemplated the challenges of enabling a fledgling architecture degree program to meet accreditation requirements for a library collection, and perform service and research to the extent that I would be granted tenure. Acting on the feeling that time was “getting away from me” I determined to start a log. The log proved to be the tool needed to consciously incorporate research and service along with job duties. The log has allowed me to monitor my allocation of time to research and service, to spend enough time to do a credible job in all three categories of job, service, and research. I credit the log with making me more efficient and effective in my use of time as well.
It seems intuitive to choose to keep a log if one wants to know how time is being spent. Presuming that is the case, however, why is the practice not more widespread? Why do we hear colleagues bemoan lack of time to do research, or service, or email reference, but rarely hear a concrete analysis of how time would have to be reallocated in order to accommodate a change? Perhaps it is not as intuitive as it might look after the fact; and/or perhaps we do not, in fact, want to know with no room for doubt where our time is being spent.

Assuming we do in fact want to know where time is going, one reservation might be that keeping a log would be time-consuming. This has not proven to be the case. The method I developed for keeping a log is simplicity itself, unlike the logs used by Ferguson and Taylor that required the participant to choose codes to represent the activities of each hour.\(^{37}\) Because of its simplicity, it takes just seconds scattered throughout the day. I just jot down the time and activity as each activity changed. For instance, 8 – 8:10 email; 8:10 – 8:30 collection development, etc. through the day. Hitchingham used a 15-minute increment, one activity per increment.\(^{38}\) However for my log the smallest unit is five minutes. There are categories, such as mail (primarily email), where five minutes here and there throughout the day add up to amounts of time worth tracking (mail accounted for 3% - 7% of each year’s total). Once a month, amounts of time are cumulated by category, resulting in a figure for the number of minutes spent for the month on any given activity. It takes about one hour to cumulate and enter the data from the month’s log into a spreadsheet.
Maintaining the log, even without calculating the results, focused my attention on the
time wasters in my schedule. Gothberg and Riggs draw from a study by Merrill and
Donna Douglass to state that “the average American worker wasted 45 percent of the
day.”39 Well it certainly wasn’t that much of a problem, but still a concern. The
observers in the Boice, Scepanski and Wilson study found participants “doing things that
were spontaneously described by them as nonessential or inefficient.”40 I found that
talking/chatting (perhaps gossiping would be a better word – although it was always
library-related!) was the first and foremost time waster. Of course a certain amount of ad
hoc general communication is part of the job, but it can be or become difficult to control.
As a result of monitoring, the time spent in unstructured “talking” hovers between 2% and
3% annually. It is not possible to say how much it was before the logs, since the very
process of keeping a log changed my behavior.

I continue to keep the log to this day, even though tenure is no longer an issue, if for no
other reason than to be able to remind myself where the day went. I am also interested in
seeing how my time allocations change over the years. I can see the impact of moving to
a new facility, of an assessment project, of a staff member taking a new position, of
serving on a national board. This information allows me to take on responsibilities with a
fairly accurate idea of the impact on time allocation, and to attempt to maintain a balance
amongst all the responsibilities of the position.

Categorization of Activities
One area that seemed fairly straightforward at the beginning, but in retrospect proved more complex is the categorization of activities. The issue is a personal one, since the log is a tool for the individual to better understand where their time is going. Nonetheless it is worth thinking through at the beginning so that you can be consistent, in so far as that is possible. For example, does a bibliographers’ meeting go under collection development or meetings? My answer was meetings, but perhaps that reflects my attitude toward bibliographers’ meetings! My rationale was that I wanted to track how much time I spent in general communication meetings, be they instruction or collection development or public services. Another example is more complex: is serving as co-chair of the library’s self-assessment committee service or part of my library responsibilities? Here I was not consistent over time, but that reflects my changing perception of what was involved. I began by putting it under service, partly because it was labeled as a “committee,” partly because I saw it as outside the scope of my duties as Architecture Studies Librarian. I have come to classify it as a library responsibility, part of the job, “other duties as assigned.” It was not something to which I was elected. It was not something that had a limited term. It was not something I had the luxury of ignoring or declining. And organizing self-assessment for the library as a whole at first paralleled and then intertwined my efforts at self-assessment for the branch.

The category of research is also not as clear-cut as might be expected. Since much of my research flows from what I do as part of the job, in order to assign time to a category it was necessary to judge the point at which I would have stopped were I not interested in publishing or presenting a paper. For instance, cumulating the minutes in the log I
consider an administrative job duty. Doing a literature search and composing are clearly aspects of the category research. Analysis of time allocations falls someplace between the two, a gray area depending on depth of analysis and purpose.

In a broader context, there are additional decisions needed in categorization. Should the category research include bibliographies and guides done for internal use? I would say that depends on the depth of the guide. Should work for a second master’s degree be considered part of research? I’d say no. Should continuing education and research be merged into a category like professional development? I kept them separate. All judgement calls. In addition, the categories of talk and of personal time, ignored by many time studies, should be part of this type of study. It is unrealistic to expect that these activities are not part of a normal day.

There are many other examples of judgment calls in categorizing activities. Any time study involving more than one person would have to devote considerable attention to coming to a definitive categorization of activities. For an individual’s study, it is something to consider and monitor.

**Patterns Emerging from the Log**

The picture of time allocation that emerges from the log is detailed, as one would expect, and allows analysis by time of year, and from year to year. The same results would not have been obtained by sampling. The category research serves as an example, although
the comments apply to other categories as well. Time spent on research is sporadic. It can be intense for a period, while deadlines are met, or an article drafted. It can be non-existent for even longer periods while other activities take precedence. It varies from week to week, from month to month, from year to year. Over the last seven years the percentage of time I have spent on research for the year has varied from 1.33% to 13.2%. For three years it was below 5%, for two years it was above 10%. The actual number of hours spent on research – just looking at the month of May -- ranged from zero in 1998 to 64 hours in 1994. The picture of how my time is allocated changes dramatically depending on the length of the time period being examined.

Some activities have predictable variations. Spring months are busier for approval plan shipments, so hours spent in acquisition duties go up. Reference goes up in the fall, with new students. I catch up on reading library literature during December’s slow period. Bibliographic instruction is heaviest in spring, since that is when I teach a for-credit class. Service hours spike in spring as well, when two library associations in which I am active meet. Collection Development is heavier in the fall, with a flurry of ordering, after none has been permitted from March to June. Supervision hours are heavier in the fall as well, with the planning and activity associated with a new school year. These are gross approximations. Months within fall or spring vary in terms of where the time goes. Indeed, rather than exemplifying the “inflexible schedule” referred to at the beginning of this article, variation in schedule is the norm. It is that very non-repetitive nature of the work that makes a tool like the log an effective means of ascertaining where the time goes.
One of the more interesting patterns that emerged from the numbers was the shifting balance of time allocation between research and service, not between job and research as is usually postulated. As research hours went up, service hours went down, and vice versa. The combined allocation varied from approximately 17% to 26%, with the mode being approximately 20%. This is actually low when compared to guidelines given in the UNLV University Libraries faculty workload policy, which specifies 10-20% for research and 10-20% for service. In my case one reason it is especially low for research is that research is so integrated into my job functions that the base work for what is ultimately research is initially done as part of job, and categorized as such. For instance I have done publication and research in the area of Internet resources in architecture, a good part of which work is work I do as part of the job of architecture librarian. These figures would necessarily be much higher were I researching areas outside of architecture librarianship and without a direct relationship with my job. For service the relationship to job is less clear, although contacts made in the course of service have certainly proven useful. It is interesting that librarians – in my experience – seem more comfortable and willing to serve on committees than to do research, perhaps because it is more like what we already do in our jobs, perhaps because we respond to the call of “doing our duty,” or perhaps because of the attraction of the social interaction.

Attitude is one key to how we focus our time and attention. I see myself doing a better job because of my “research.” I believe that research is part of my position. Even so at least part of the decline in time spent on research was due to a growing concern on my
part, since resolved, that I would be seen to fall into that suspect category of those that allow an interest in publishing to take precedence over job duties. There may also be a certain amount of post-tenure fatigue involved, given that the decline in research time coincided with the review of my tenure application in fall 1995, and the subsequent lifting of that pressure. It is nonetheless particularly embarrassing to have to report that I allowed more time to be allocated in the category “talk” for the years 1996-1998 than to research.

Whatever role attitude played, the most concrete and obvious cause of the shifting allocation between research and service was the increase in time needed to serve a term on the ARLIS/NA (Art Libraries Society of North America) Executive Board. Although in some ways hours spent on both research and service are more purely discretionary than hours spent satisfying the demands of “job,” specific research and service commitments may last over years, as that particular service commitment did. The chart below shows the shifting allocations over the years. With a goal of roughly equivalent amounts of time allocated to research and service, it is obvious that balance was not achieved during some years. Some time, however, was allocated in both areas each year. The least amount was the approximately 30 hours spent on research in 1997.

[TABLE 2]

Allocations of time amongst my job duties also change from year to year. Although this is of less general interest than the patterns of research and service time, since each
librarian’s duties are in many ways unique, it does highlight the value of the log for tracking patterns. One example of my changing job and consequent changing time allocation has been the appearance of supervisory tasks as one of my top five job time expenditures in the years since opening the branch facility. Where did that time come from? According to the log, dropping from the top five slots is building planning and liaison with faculty and students (no doubt part of which is now being done by those I supervise).

Concluding Remarks

The reason for initiating the time log was personal, and I would agree with Mauro and Weber when they say “how time is used is ultimately an individual responsibility.”41 However, one can generalize concerning the benefits both of monitoring time using the log as a tool and the examination of one individual’s time allocation patterns. Boice notes that “one of the most powerful stresses for academicians is working in a context where they feel they have never done enough scholarship.” He speaks further of an “irrational distress, of feeling there is never enough time for reasonable performance.”42 For librarians in tenure-track positions both statements will no doubt strike a chord. Knowing where your time is going can be instrumental in alleviating if not eliminating this condition. We do have time: not enough to do everything we’d like to do, but time nonetheless to allocate as we see fit. Professionals see their responsibilities as a whole, constantly making judgements, assigning priorities, shifting focus. Just as we juggle the competing needs of various job duties such as collection development, or bibliographic instruction, or reference, or administrative duties, so too we must keep in the air the
duties of research and service. By monitoring our time we can exert some measure of control. By monitoring our time we enforce accountability to ourselves, enabling us to change behavior based on actual rather than perceived allocations of time, and as a result of conscious decision.

There is no standard for the percentage of time that should be allocated to research, service, and job. This must be seen in the context of a profession that has yet to reach consensus, even among the subset of academic librarians, about the value of practitioner research and service in informing our jobs. It must also be recognized, however, that the optimum division of time amongst duties varies depending on many factors including but not limited to the acceptance of research and service as contributing to our effectiveness as librarians. Examination of one individual’s allocations serves to highlight the concept that substantial variability in time spent on research, service and job is not antithetical to the overall aim of integrating all three into a unified whole. More important than a standard number of hours per week for research and service, a standard should mandate balance and integration. The more interrelated we make the three areas, the easier it is to maintain balance. Research, service and job do not take away one from the other – they each enhance the other. For that to happen, all must occur, must be kept in balance, must be seen as essential to the job as a whole. Understanding that there will be periods when, due to circumstance or opportunity, one of the three is clearly predominant, over time balance must be re-established. Balance does not mean that each of the three – research, service, job – must be evenly divided, or even strictly divided. It does mean none can be ignored, and that one cannot be allowed to overpower the other two.
Table 1  
Research and Service Time As Reported in the Literature

<table>
<thead>
<tr>
<th>Study</th>
<th>Research time</th>
<th>Service time</th>
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</thead>
<tbody>
<tr>
<td>Ferguson &amp; Taylor</td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Research alone average</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Research and bibliographies average</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Schreiner-Robles &amp; Germann average</td>
<td>9.5%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Hitchingham average</td>
<td>13.5%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Hart average</td>
<td>12.4%</td>
<td>--</td>
</tr>
<tr>
<td>Brown and Harrison average</td>
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<td>7%</td>
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</table>
Table 2
Research and Service Time As Recorded by the Author

<table>
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<tr>
<th>Year</th>
<th>% of Time on Research</th>
<th>% of Time on Service</th>
<th>Total</th>
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<tr>
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<td>13.2%</td>
<td>12.77%</td>
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<td>15.93%</td>
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<td>1999</td>
<td>8.81%</td>
<td>10.99%</td>
<td>19.80%</td>
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</table>
Notes


7 Ibid.


14 Ibid., 224.

16 Fairchild, 219.


18 Ibid., 17.

19 Boice, Scepanski and Wilson, 496.


22 Ibid., 12.
23 Everhart; Roberts.

24 Schreiner-Robles and Germann, 84.

25 Ferguson and Taylor, 27.

26 Ibid., 28.

27 Hitchingham, 134.

28 Ibid., 135.

29 Ibid., 136.

30 Ibid.

31 Schreiner-Robles and Germann, 84-85.

32 Hart, 457.


37 Ferguson and Taylor, 26.

38 Hitchingham, 134.


40 Boice, Scepanski and Wilson, 499.
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