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Bibliometric Study in the Heartland: Comparative and Electronic Citation Practices of the Indiana, Kentucky, Michigan and Ohio Supreme Courts (1994–2004)

Abstract: This study by Dragomir Cosanici provides a bibliometric, comparative study of the citation practices of the state supreme courts in the common law jurisdictions of Indiana, Kentucky, Michigan and Ohio, USA during a recent ten-year span (1994–2004). It focuses on the type of legal materials most frequently cited as authority, examining the importance of both primary and secondary sources. It specifically analyses the growing usage of electronic citations by the four supreme courts.
Keywords: Citations, Indiana Supreme Court, Ohio Supreme Court, Kentucky Supreme Court, Michigan Supreme Court, bibliometrics; courts; United States

1. Introduction

Throughout the years researchers have analysed the relative influence of legal citations in various parts of the United States, as well as in Canada.[1] None has, however, simultaneously studied and compared the citation practices of supreme courts from contiguous states. With the proliferation of state and federal statutes, increasing reliance on case law from other jurisdictions, as well as the explosion of electronic resources as legal authority, it has become important to compare regionally the citation practices of contiguous state supreme courts. The author's motivation for this article is the lack of availability of regional comparative citation studies.

Dragomir Cosanici

Since the US common law system relies almost in its entirety on holdings in prior cases, correct citations are essential.[2] They are the "shorthand" courts use to show that the sources they cite are sound and authoritative.[3] As one author notes, "Citations are signposts left behind after information has been utilised and as such provide data by which one may build pictures of user behavior without ever confronting the user himself."[4]

The states surveyed frequently share some of the same history, have similar demographics and tend to experience similar social and political trends. It is, therefore, important to learn whether geographical as well as social trend proximity translate into similar citation patterns at the supreme court levels of these four contiguous states.

There are other equally important reasons for studying citation practices. It goes without saying that appellate cases present complex or novel issues involving unsettled areas of law. Successful

advocacy depends upon anticipating how appellate courts use diverse legal authorities to resolve the presented disputes. Resolving such issues often requires a widespread examination of authorities cited by appellate courts.

Proponents of citation-based studies (also called "bibliometrics") have consistently argued that such rankings provide a measure of relative influence of citation sources on legal scholarship and courts.[5] In bibliometrics, the derived measures are typically counts of the frequencies with which events of specified types are observed to occur.

The article's purpose is threefold: first, to determine what types of legal authorities are likely to be cited by the supreme courts in this region; second, to compare the findings among the four courts; and third to analyse the growth and types of electronic citations used from 1994 until 2004. The main hypothesis is that the ratios and types of legal authorities cited are going to be statistically very similar, if not virtually identical. Moreover, during the studied decade, there is a growing trend in the citation of electronic resources. Finally, with the proliferation of federal cases[6], all four supreme courts will experience a growing trend of citations to federal opinions, as well as to federal statutes.

II. Methodology

The ten-year period studied of 1994–2004 provides the most up to date and accurate sample of citations in electronic format. The pre-1990 case citations would not provide many, if any, electronic citations. I also wanted to focus on the freshness of these citations instead of their historical significance. Finally, the chosen decade presents the researcher with uniformity. All four supreme courts reported their cases in only one edition of a single reporter, unlike more dated case citations, which may be found in multiple reporters or different editions of the same reporter.

Although most writers have selected at least three sample years to analyse the raw data, the current study sampled four years: 1994, 1997, 2000 and 2004. In order to obtain a significant and representative sample for each of the studied years, 75 cases per sample from each of the supreme courts were selected in a random fashion. This number of cases was chosen because it was limited by the availability of cases per year published by the Michigan Supreme Court, which in 1997 published some 75 cases. To ensure sample uniformity among the four courts, 75 random cases were chosen from each supreme court for analysis.

All the citations were recorded, as long as they were distinct from one another. If an opinion was cited more than once in a case, but different issues of the cited opinion were discussed, both citations were treated as distinct. Any citation to a code or a regulation was counted separately, as long as there was a distinct subdivision indicating different code or regulation section. All parts of the opinion were studied and analysed, including dissenting opinions. All 1,200 cases were checked manually for accuracy.

The collection of such a massive dataset along with the main aims of the study did not make it practicable to distinguish among the different procedural postures of each case. They were each recorded, as long as they each represented a case that was appealed to the highest court of one of the studied states. In the same manner, neither the disposition of the case nor the unanimity of the opinion made any difference to the data studied. Each case, however, was closely reviewed for any federal issues present.

Each of the reviewed cases was carefully checked for the following type of information: (1) The type of authority (court decision, statute, administrative rule, secondary source or other); (2) The jurisdiction associated with the authority, if any; (3) Secondary sources (American Law Reports and encyclopedias, restatements/treatises, law reviews/journals; (4) Procedural or ethics rules by jurisdiction and (5) Electronic citations. The online citations noted all web citations as well as Westlaw or Lexis citations. The aim here was to measure the hypothesised growth in the use of online citations without skewing the sample. As a result, the Westlaw and Lexis citations found within the individual cases studied were always distinct from the West/Lexis citation allocated by the vendor to each studied case.

III. Sources analysed

Select authors have restricted their data collection to certain types of legal authority, sometimes excluding constitutions, statutes, and regulations[7] from their surveys or limiting their investigations to law reviews,[8] secondary source citations, [9] or unpublished opinions.[10] This study, on the other hand, sought to provide a comprehensive picture of the Supreme Courts' citation practices by combing the opinions for a comprehensive array of cited authorities.

A) Primary authority

Since only primary authority is binding,[11] these types of sources were naturally a major focus of the study. In this article the following types of primary authority were tabulated separately:

- Indiana, Kentucky, Michigan and Ohio Supreme Court cases
- Indiana, Kentucky, Michigan and Ohio Court of Appeals cases
- Cases from all other states
- Federal cases
- Indiana, Kentucky, Michigan and Ohio state statutes as well as statutes from all other states

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- Federal and state administrative law from all other states
- Federal statutes and administrative law
- State and federal rules (ethics/procedural)

Primary authorities were given close scrutiny, but there was no differentiation between various states' statutes based on geographic or any other criteria.

B) Secondary authority

The persuasive weight judges afford secondary authorities is a much debated question. Some studies have shown a large increase in the use of secondary source citations,[12] while others have discovered a decline.[13] To assess the usage of secondary authorities by the four courts, cites to the following types of sources were counted:

- American Law Reports (ALR)/Encyclopedias
- Restatements of Law/Treatises
- Law reviews and legal journals

C) Electronic citations

While citations to primary and secondary authority sources of law were the focus of the study, special attention was paid to electronic citations found in these cases. It is common knowledge that electronic sources on the internet continue to multiply exponentially. In addition to the court opinions that are widely available in electronic format on Lexis and Westlaw, other primary sources of law have become available online, including federal statutes,[14] federal regulations[15] and international treaties.[16] Secondary legal sources available in electronic format include HeinOnline, a renowned database of older law reviews, as well as collections of scholarly articles from other disciplines.[17] This vendor-driven proliferation of electronic resources has not gone unnoticed.

The federal government has drastically increased the number of publications exclusively available in electronic format.[18] States are closely following the federal government's lead. For example, the Indiana legislature has required that, after June 30, 2006, the Indiana Administrative Code be exclusively published in electronic form, with exceptions for printed copies only to federal depository libraries in the state of Indiana.[19] The explosion of electronic documents found on the internet is well-reflected in legal literature. Citations to electronic documents in secondary resources such as law reviews and journals, heavily relied on by faculty and law students, have dramatically increased in recent years.[20] Law students, as one author has found, rely primarily on Westlaw and Lexis Nexis for their research.[21] Even the notorious Bluebook has changed to accommodate the increasingly electronic world of citations.[22]

The proliferation of electronic citations has not been without controversy. The Indiana Court of Appeals, for example, has had a difficult time deciding just how much weight it should give to electronic resources that it cites. In *Smylie*[23], the Indiana Supreme Court praised the usage of electronic blogs cited by the Indiana Prosecuting Attorneys Council in its amicus briefs. On the other hand, the Indiana Court of Appeals in *Commitment of M.M.*[24] concluded that while electronic articles cited by the petitioner in his brief provide general background information, they are ultimately not effective in assisting the Court of Appeals in reaching a decision on the matter before it. This apparent inconsistency raises a slew of questions about the usage of electronic citations.

The combination of these factors have motivated me to find out whether the supreme courts under consideration have followed this electronic trend. The hypothesis here was that the greater availability of primary and secondary resources in electronic format, some of which are exclusively published online, the greater the use of electronic citations at the supreme court level in the states studied. The answer to this question is partly dependent on the individual judge's preferences, since legal scholarship often relies upon obscure or historical sources that are frequently available only in print.[25] Lastly, what does this mean for academic law library collections? Will our collections be exclusively relying on electronic resources? One observer has already documented that many academic law libraries have drastically reduced or altogether eliminated duplicate reporter sets.[26]

IV. General results

A basic assumption regarding the judicial process is that judges cite authorities in opinions because they are either bound by them, or they find them compelling to the resolution of the presented legal issue(s).[27] To the extent that we can identify patterns in the uses of authority in general, we can make more informed estimates about how the supreme courts will respond to the different types of authority in various situations.[28]

A) Judicial opinion citations in general

Tables 1–4 contain citations to all authorities (primary, secondary and electronic) found in the 1,200 studied cases decided by the four supreme courts between 1994 and 2004. The judicial opinion was consistently the most cited source by all four. The interesting fact, however, is

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Table 1 – Indiana Supreme Court Citation Patterns 1994–2004

	1994	1997	2000	2004	Category Totals	Percent of Total Citations
Case Law						
Indiana Supreme Court	321	516	603	459	1899	32.05%
Indiana Court of Appeals	126	165	207	251	749	12.64%
Other States	25	40	47	65	177	2.99%
Federal	97	175	114	235	621	10.48%
Totals	639	991	965	993	3588	**58.16%**
Statutes						
Indiana	150	270	271	234	925	15.61%
Other States	2	2	1	3	8	0.14%
Federal	14	30	28	29	101	1.70%
Totals	166	302	300	266	1034	**17.45%**
Administrative Law						
Indiana	8	0	1	10	19	0.32%
Other States	1	0	0	0	1	0.02%
Federal	0	3	1	1	5	0.08%
Totals	9	3	2	11	25	**0.42%**
Secondary Sources						
American Law Reports/ Encyclopedias	4	13	1	7	25	0.42%
Restatements/Treatises	16	18	32	33	99	1.67%
Law Reviews/Journals	3	8	16	34	61	1.03%
Totals	23	39	49	74	185	**3.12%**
Other						
Rules: Ethics/Procedural – Indiana	310	266	253	179	1008	17.01%
Rules: Ethics/Procedural – Federal	26	19	40	2	87	1.47%
Online Citations	16	22	46	56	140	2.36%
Totals	352	307	339	237	1235	**20.84%**

that judicial opinions did not represent the same percentage of total citations amongst the four.

The Indiana Supreme Court cited judicial opinions some 58% of the time between 1994 and 2004 (see Table 1). The Kentucky Supreme Court cited judicial opinions some 61% percent of the time (see Table 2), while the Michigan Supreme Court cited judicial opinions a whopping 73% percent of the time during the same period (see Table 3). The Ohio Supreme Court cited to cases some 53% of the time (see Table 4). There is a notable disparity between two of the courts, specifically some 15 percentage points between the Indiana Supreme Court and the Michigan Supreme Court.

Part of the explanation for this difference can be found in the number of citations to statutes. Out of the four studied supreme courts, the Michigan Supreme Court cited least to statutes, some 16% of the time (see Chart 3), while the rest of the courts cite to statutes between 18% and 26% of the time (see Charts 1, 2, and 4). The other part of the explanation lies in the fact that, although the Michigan Supreme Court's citations to secondary sources and administrative law are consistent with the other three courts, its reliance on rules, and online authorities lags far behind the others. Michigan's highest court cited to ethics/procedural rules and online resources only some 5% of the time (see Chart 3), while the other three benches cited to those same authorities at least twice as often (see Chart 1, 2 and 4). Clearly, the Michigan Supreme Court found case law as the most compelling source of all, nearly 3:1 over any other authority or 75% of all authorities. For the other three supreme courts, case law represented little over 50% of all authorities.

B) State Court decisions

The basic presumption here was that the four supreme courts cite a similar percentage of time to state court opinions. This group of citations includes all state cases regardless of the fact that they may be lower appellate

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Table 2 – Kentucky Supreme Court Citation Patterns 1994–2004

	1994	1997	2000	2004	Category Totals	Percent of Total Citations
Case Law						
Kentucky Supreme Court	445	679	595	478	2197	37.37%
Kentucky Court of Appeals	48	91	71	82	292	4.97%
Other States	15	58	160	157	390	6.63%
Federal	131	163	139	276	709	12.06%
Totals	639	991	965	993	3588	**61.03%**
Statutes						
Kentucky	238	372	314	314	1238	21.06%
Other States	0	3	59	4	66	1.12%
Federal	17	15	22	31	85	1.45%
Totals	255	390	395	349	1389	**23.63%**
Administrative Law						
Kentucky	21	2	1	5	29	0.49%
Other States	0	0	0	0	0	0.00%
Federal	0	1	1	3	5	0.09%
Totals	21	3	2	8	34	**0.58%**
Secondary Sources						
American Law Reports/ Encyclopedias	6	10	9	21	46	0.78%
Restatements/Treatises	11	35	53	36	135	2.30%
Law Reviews/Journals	1	2	3	24	30	0.51%
Totals	18	47	65	81	211	**3.59%**
Other						
Rules: Ethics/Procedural – Kentucky	124	141	187	188	640	10.89%
Rules: Ethics/Procedural – Federal	1	4	0	4	9	0.15%
Online Citations	1	0	0	7	8	0.14%
Totals	126	145	187	199	676	**11.18%**

courts or other Supreme Court cases. Citations to state trial cases, although rare, were not included. The original hypothesis held true. The Indiana, Ohio, Michigan and Kentucky Supreme Courts between 1994 and 2004 generally cited to state court cases in a pretty consistent fashion. The Ohio and Indiana Supreme Court cited to state court decisions some 47% of the time (see Tables 1 and 4), while the Kentucky Supreme Court cited 49% to the same authorities (see Table 2). The Michigan Supreme Court cited to state court opinions more than half the time; some 54% of the time (see Table 3). There was no preference for opinions from contiguous versus non-contiguous states.[29]

Also interesting was the finding that the single most cited authority for judicial opinions among all four courts was, unsurprisingly, the highest state court in its own jurisdiction. The Indiana Supreme Court cited to itself the least, some 32% percent of the time (see table 1) while the Ohio Supreme Court cited the most often to itself, some 41% of the time (see Table 4). Kentucky Supreme Court cited to itself some 37% of the time, while the Michigan Supreme Court cited to itself some 34% percent of the time. (See Tables 2 and 3 respectively).

But what is the significance of these findings? First, the statistical findings are very much in tune with other studies that have analysed citation practices, showing a definite preference for the opinions of the state's highest court.[30] They also support the original theory that the ratios of cited legal authorities by types found among the four courts are going to be statistically very similar. Second, practitioners and law students must not rely on case law citations from other states. The four studied state courts relied very little on other states' case law; from the low of 2.5% in Indiana to about 7.8% in Michigan. Therefore, the case law of other states holds low precedent value and is hence rarely relied upon by these four supreme courts. Finally, there is no discernable preference for cases from contiguous states versus cases from non-contiguous states. This provides some specific clues related to collection development

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Table 3 – Michigan Supreme Court Citation Patterns 1994–2004

	1994	1997	2000	2004	Category Totals	Percent of Total Citations
Case Law						
Michigan Supreme Court	1036	745	540	408	2729	34.00%
Michigan Court of Appeals	419	283	223	119	1044	13.01%
Other States	359	142	104	26	631	7.86%
Federal	484	613	310	90	1497	18.65%
Totals	2298	1783	1177	643	5901	**73.52%**
Statutes						
Michigan	312	220	380	210	1122	13.98%
Other States	9	3	6	8	26	0.32%
Federal	54	45	24	25	148	1.84%
Totals	375	268	410	243	1296	**16.15%**
Administrative Law						
Michigan	3	6	4	5	18	0.22%
Other States	0	0	0	0	0	0.00%
Federal	0	3	3	2	8	0.10%
Totals	3	9	7	7	26	**0.32%**
Secondary Sources						
American Law Reports/ Encyclopedias	25	12	9	14	60	0.75%
Restatements/Treatises	148	70	23	27	268	3.34%
Law Reviews/Journals	54	25	12	9	100	1.25%
Totals	227	107	44	50	428	**5.66%**
Other						
Rules: Ethics/Procedural – Michigan	95	91	46	103	335	4.17%
Rules: Ethics/Procedural – Federal	6	2	2	1	11	0.14%
Online Citations	0	2	2	25	29	0.36%
Totals	101	95	50	129	375	**4.67%**

for those libraries that must make tough collection decisions.

C) Federal Court opinion citations

Among the four studied supreme courts, contrary to the original hypothesis, citations to federal judicial opinions as a percentage of total cited authorities have been inconsistent. The Indiana Supreme Court has cited to federal judicial opinions a little more than 10% of the time (see Chart 1); the Kentucky Supreme Court and the Michigan Supreme Court 12% and 19% of the time respectively (see Charts 2 and 3) and the Ohio Supreme Court only some 7% of the time (see Chart 4). Some observers have opined that nationally there are greater numbers of civil cases with constitutional or regulatory questions that likely include multiple citations to federal opinions.[31] Others have argued that the increased use of federal opinions has followed the growing number of opinions involving criminal issues.[32] So why is there such a large discrepancy in this study?

It can be explained by the preferences of the specific court. As earlier mentioned, the basic assumption regarding the judicial process is that judges cite authorities in opinions because they are either bound by them, or find them compelling to the resolution of the presented legal issue. In the studied sample the Ohio Supreme Court has either ruled on fewer issues requiring the examination of federal courts' opinions in the studied period, or has found the federal opinions not to be binding. Either way, the Ohio Supreme Court prefers state to federal citations at a rate of 6:1 whereas the other three high courts prefer state to federal citations at the rate of roughly 4:1 (see Charts 1–4).

It is also important to mention that citations in judicial opinions represent only a limited measure of persuasion. Although a court may be citing a federal court decision because it is influenced by its decision-making process, it

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Table 4 – Ohio Supreme Court Citation Patterns 1994–2004

	1994	1997	2000	2004	Category Totals	Percent of Total Citations
Case Law						
Ohio Supreme Court	340	528	513	415	1796	40.93%
Ohio Court of Appeals	37	21	23	18	99	2.26%
Other States	59	8	26	19	112	2.55%
Federal	132	64	48	61	305	6.95%
Totals	568	621	610	513	2312	**52.69%**
Statutes						
Ohio	307	207	265	275	1054	24.02%
Other States	6	0	3	7	16	0.36%
Federal	30	7	14	15	66	1.50%
Totals	343	214	282	297	1136	**25.89%**
Administrative Law						
Ohio	33	7	29	7	76	1.73%
Other States	0	0	0	0	0	0.00%
Federal	16	0	1	0	17	0.39%
Totals	49	7	30	7	93	**2.12%**
Secondary Sources						
American Law Reports/ Encyclopedias	8	4	4	6	22	0.50%
Restatements/Treatises	37	18	5	4	64	1.46%
Law Reviews/Journals	17	9	2	5	33	0.75%
Totals	62	31	11	15	119	**2.71%**
Other						
Rules: Ethics/Procedural – Ohio	130	135	111	248	624	14.22%
Rules: Ethics/Procedural – Federal	0	0	4	1	5	0.11%
Online Citations	17	20	21	41	99	2.26%
Totals	147	155	136	290	728	**16.59%**

may also be citing the decision as an after-the-fact explanation that legitimises a decision reached on separate grounds.[33] In addition, the court may cite the decision to distinguish it from the result reached.[34] Finally, justices may be persuaded by a federal decision and, for whatever reason, choose not to cite it in their opinion.

As a result of these limitations, future researchers addressing federal court influence may wish to consider moving beyond citation studies. One possible approach is to study the diffusion of federal legislative and administrative innovations.[35] As an example, some studies have shown that judicial adoptions of innovative policies are influenced by the adoption of these policies in neighbouring states.[36]

D) Secondary sources and administrative law

Secondary sources proved consistently to be the least utilised category of authority by all four supreme courts. During the time period 1994–2004, three of the four high courts cited to a secondary authority only about 3% of the time (see Charts 1–4), with the Michigan Supreme Court citing slightly more often at 5% of the time (see Chart 3). Tables 1–4 confirm that the single most cited resource in this category by all four courts were restatements and treatises. What does this mean? It simply confirms the original hypothesis of consistent citation practices among the four courts. It also conforms to the citation trends found by other authors who have analysed citation practices of state appellate courts throughout the years.[37] According to these results, there is clear evidence that scholarly writing has not had a significant effect on any of the four studied high courts between 1994 and 2004.

The remaining references in this category of authorities were generally made to traditional legal encyclopedias and annotations. Of all these resources, the only category that approached the law from a critical perspective was that of the law review; the other forms

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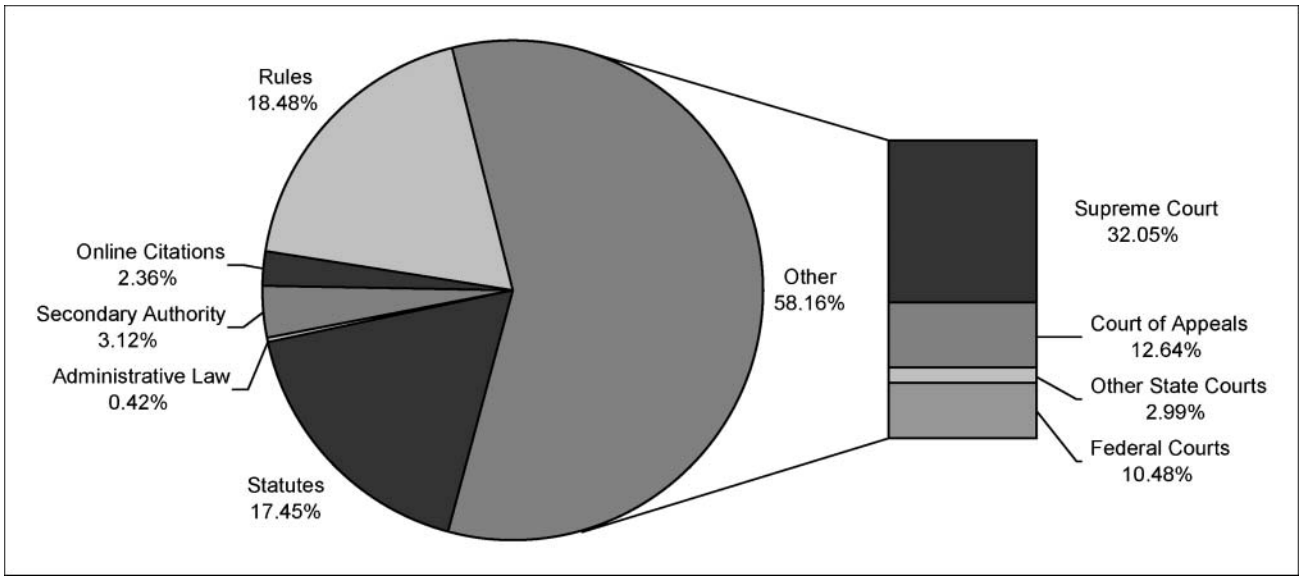

Chart 1: Indiana Supreme Court Citation Patterns 1994–2004

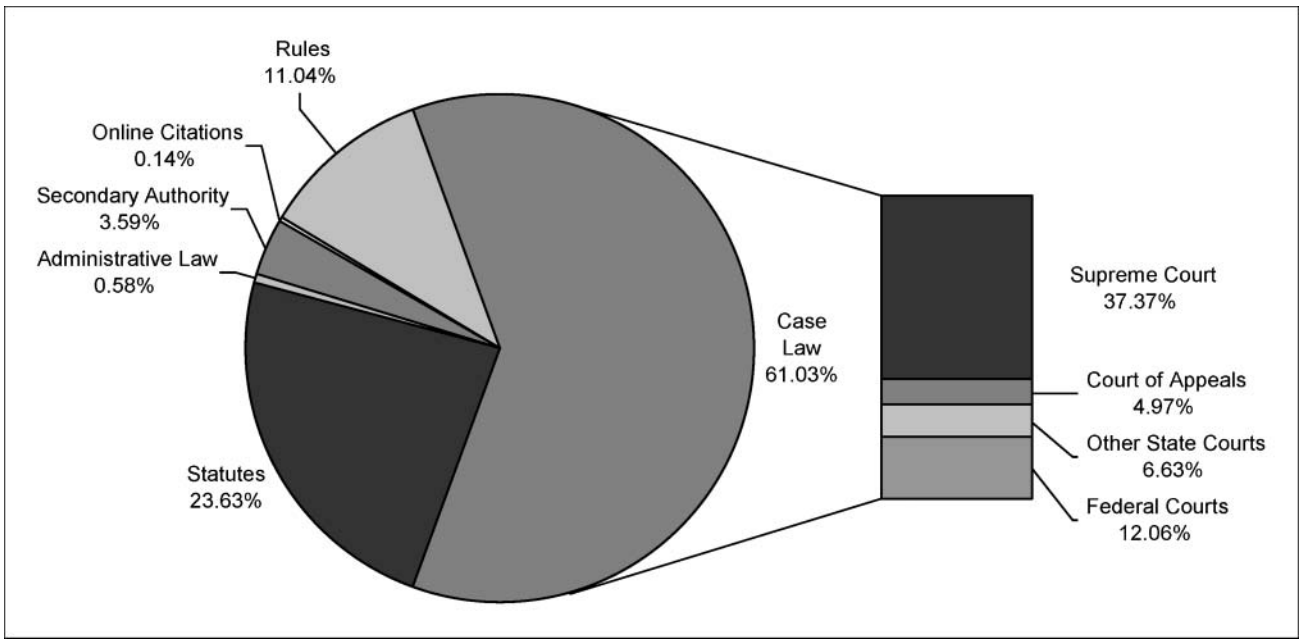

Chart 2: Kentucky Supreme Court Citation Patterns 1994–2004

tend to be summary or descriptive in nature.[38] The majority of references to secondary sources are "baseline citations."[39] This term refers to the practice of citing a secondary source for a basic, settled proposition of law instead of referring to a line of cases.[40] At least one author argues that this citation trend represents an efficient method of providing authority for undisputed points of law, and hence it is very useful in clearing away uncontested points of analysis in complex cases.[41]

The same trend of consistency was found among all four courts in the area of administrative law. The Michigan, Indiana and Kentucky Supreme Court cited to administrative law, regardless of its source, less than 1% of the time (see Charts 1–3) with the Ohio Supreme Court citing some 2% of the time (see Chart 4). This trend is generally supported by authors who have studied citation practices.[42]

E) Other sources

The next to last category of citations studied encompassed state and federal procedural and ethics rules. They warranted their own category because they represented a significant percentage of citations for all four courts. It is crucial to note that there were significant variances in the numbers of federal and state court procedure/ethics rule

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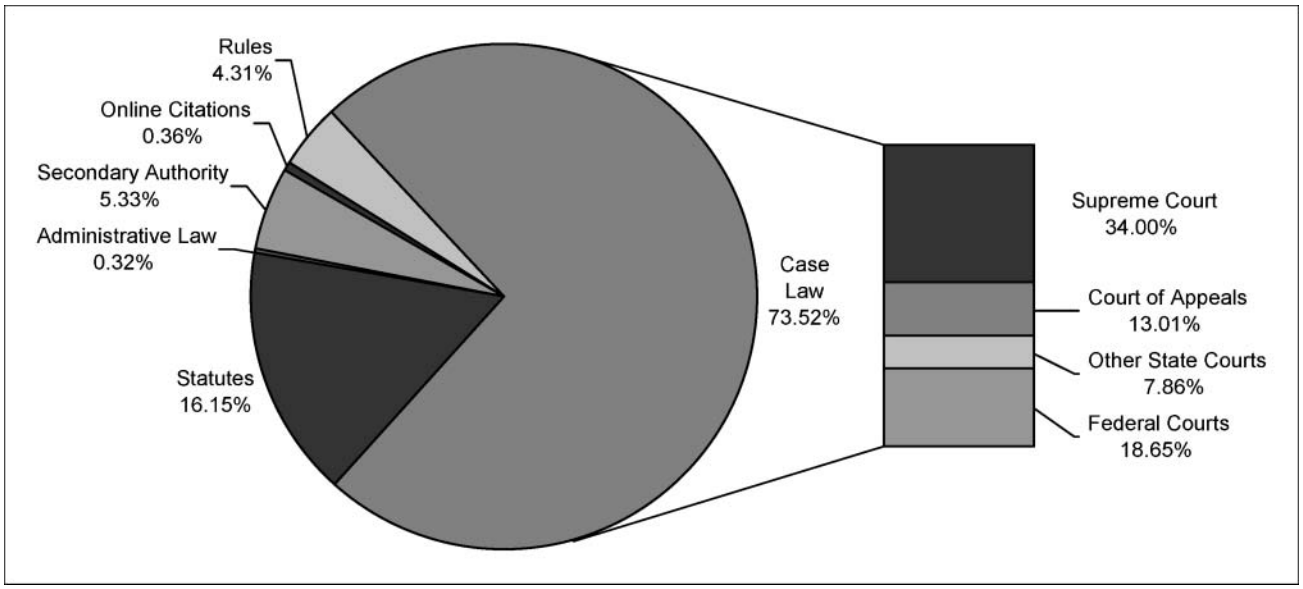

Chart 3: Michigan Supreme Court Citation Patterns 1994–2004

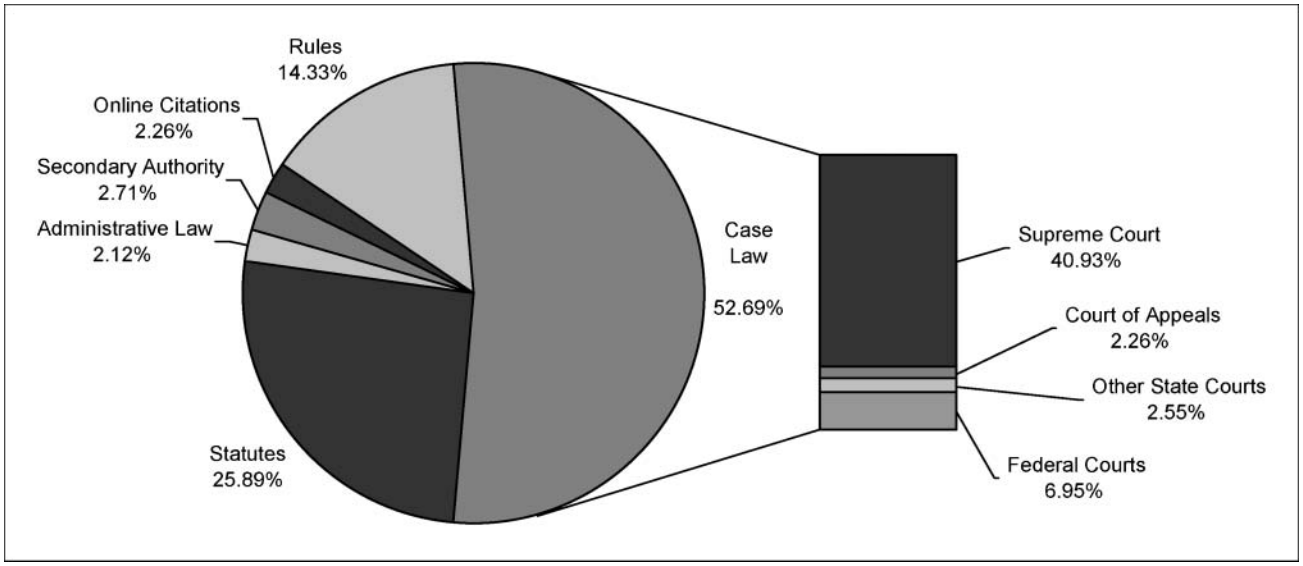

Chart 4: Ohio Supreme Court Citation Patterns 1994–2004

citations by all four courts. This ran contrary to the assumption that the four high courts would exhibit similar if not identical citation practices. The Indiana Supreme Court cited to Indiana as well as federal rules (ethics and procedural) some 18% of the time (see Chart 1). The Kentucky Supreme Court cited to the same authorities only about 11% of the time (see Chart 2) and such citations amounted to only 4% of the total citations by Michigan Supreme Court (see Chart 3). The Ohio Supreme Court cited to rules 14% of the time (see Chart 4). So why is there such a large discrepancy among the four courts?

This can be clearly attributed to the different court rules pertaining to the discipline of both attorneys and judicial officers. In Indiana, for example, the Supreme Court is the sole reviewing authority of a hearing officer's findings in attorney misconduct proceedings.[43] In cases where judicial officers have been charged with misconduct, they may only petition the Indiana Supreme Court within 30 days of the filing of the Disciplinary Commission's report.[44] In Michigan the Supreme Court review of attorney misconduct proceedings is discretionary. The aggrieved party may file a leave to appeal the decision within 28 days of the entry of the decision by the Attorney Discipline Board.[45]

The Kentucky Supreme Court Rules provide that a disciplinary board review a hearing officer's decision in an attorney misconduct proceeding.[46] This intermediary step prevents many disciplinary cases from reaching the full Kentucky Supreme Court, because they may be

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resolved before the board. Ohio state rules provide for similar interplay between the disciplinary board and the Ohio Supreme Court. If the latter rejects the imposed sanctions, it has the discretion of remanding a decision by the disciplinary board back to the board for a full hearing.[47] These factors translate into fewer rule citations in Michigan, Kentucky and Ohio versus Indiana.

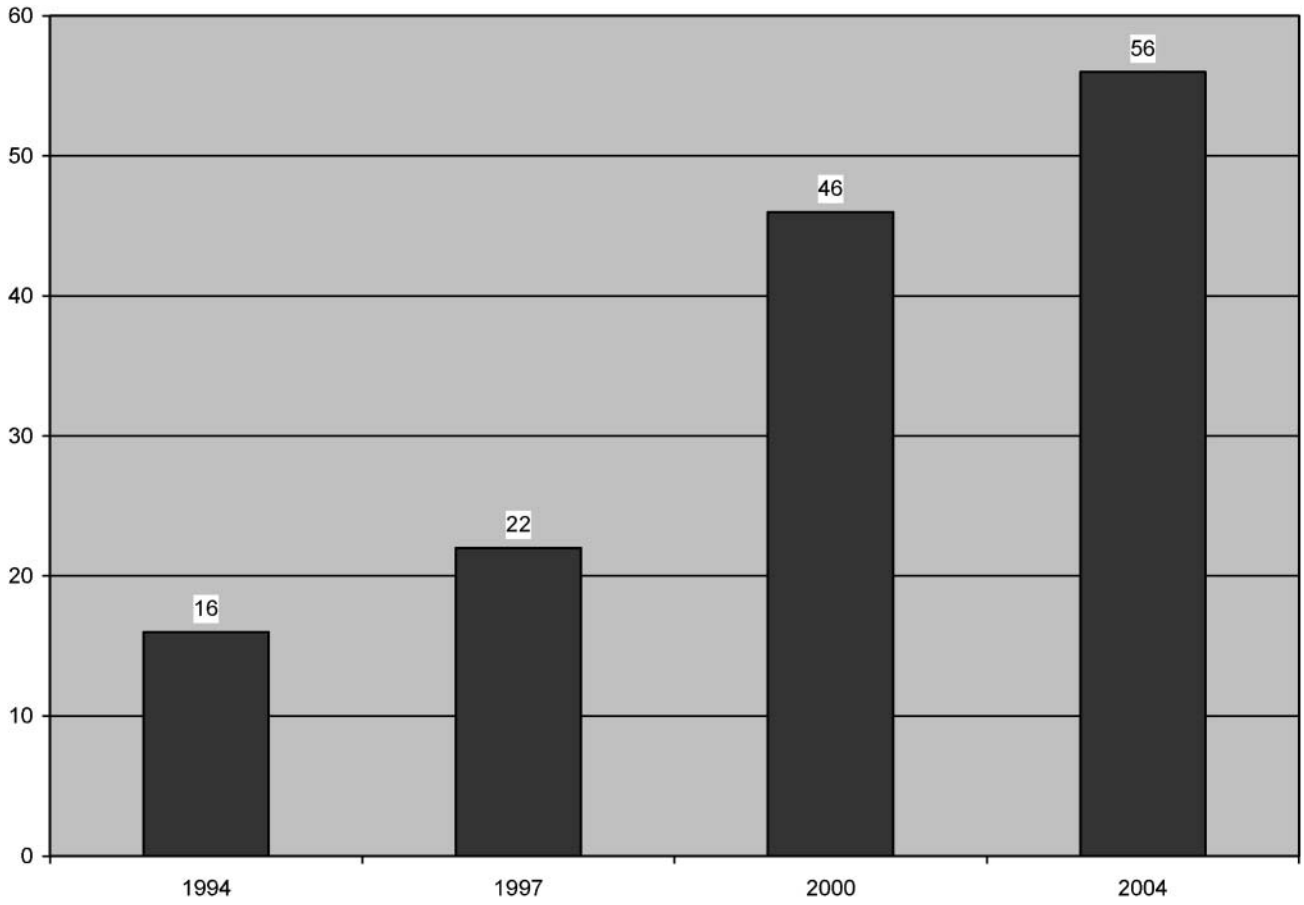
V. Electronic citations

The unique aspect of this study is the four courts' trend in citing to electronic resources. In order to ensure objectivity, I selected only verifiable electronic citations found in the 1,200 cited cases. If any of the courts merely mentioned online citations without actually providing a citation or a footnote, I ignored them. The overall results matched the hypothesis of exponential growth in this category of citations, which was consistent for the case samples selected in all four states.

The Indiana Supreme Court experienced the most vivid growth in the number of electronic citations. Between 1994 and 2004, in the 300 sample cases studied, it cited to a total of 140 cases, or roughly one electronic citation for every other sample case (see Graph 1). This amounted to 2.36% of the total number of citations by the Indiana Supreme Court during this time period (see Table 1). The most revealing factor is that the number of electronic citations grew exponentially with every advancing sample year. For example, the Court cited to only 16 electronic cases in 1994, while in 2004 it cited to 56 electronic authorities. (see Graph 1).

The same trend held true for the Ohio Supreme Court. Between 1994 and 2004, it cited to electronic citations 99 times, or roughly once for every three sample cases (see Graph 4). This translates into 2.26% of total citations utilised by the Ohio Supreme Court (see Table 4). It cited to electronic authorities 17 times in 1994, but just about tripled that number to 41 by 2004 (see Graph 4).

The supreme courts of Michigan and Kentucky also experienced an "upward curve" on a graph of electronic citations between 1994 and 2004 (see Graph 5). The growth, however, was tempered by at least one sample year (1994 for the Michigan Supreme Court, and 1997 and 2000 for the Kentucky Supreme Court), where each bench respectively did not cite at all to electronic authorities (see Graphs 2 and 3). Such numbers translated in negligible percentages for both states; electronic citations barely registered on the barometer of either Kentucky or the Michigan Supreme Court between 1994 and 2004 (see Graphs 2 and 3). This shows



Graph 1: Indiana Supreme Court Online Citations 1994–2004

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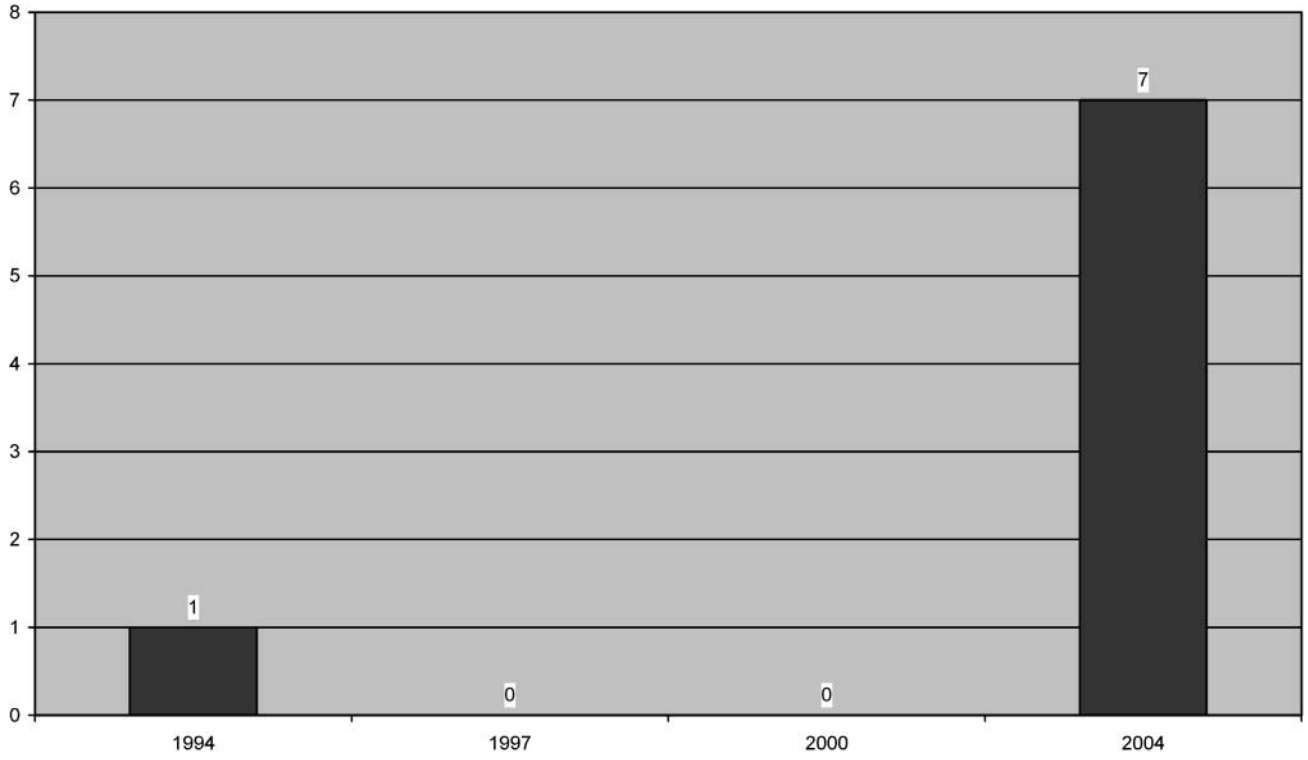
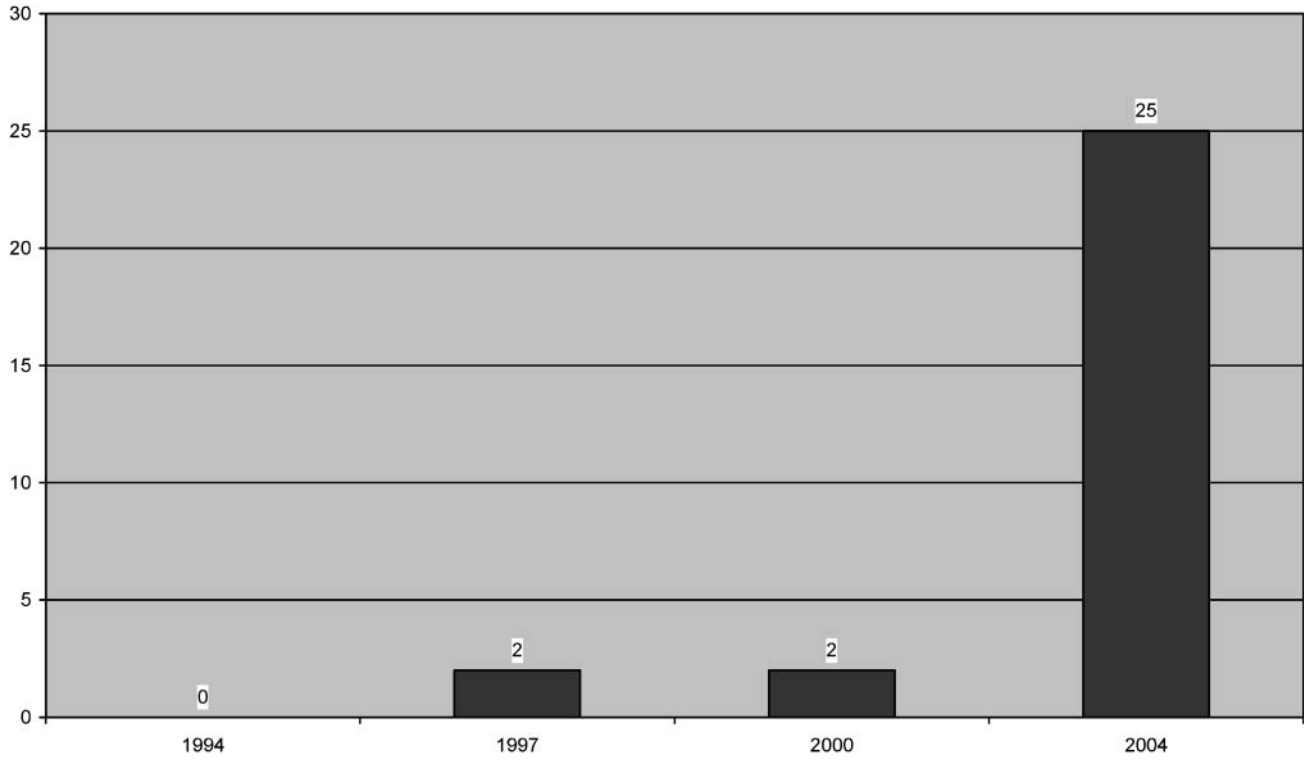


Graph 2: Kentucky Supreme Court Online Citations 1994–2004



Graph 3: Michigan Supreme Court Online Citations 1994–2004

that while the acceptance of electronic citations by the highest courts in the United States is not uniform, there is a definite trend of growth in the usage of such authorities.

The proliferation of electronic resources has made a slow, but significant transition into the case citations of the Supreme Courts studied, and students should be wary of citing too often to such resources, because

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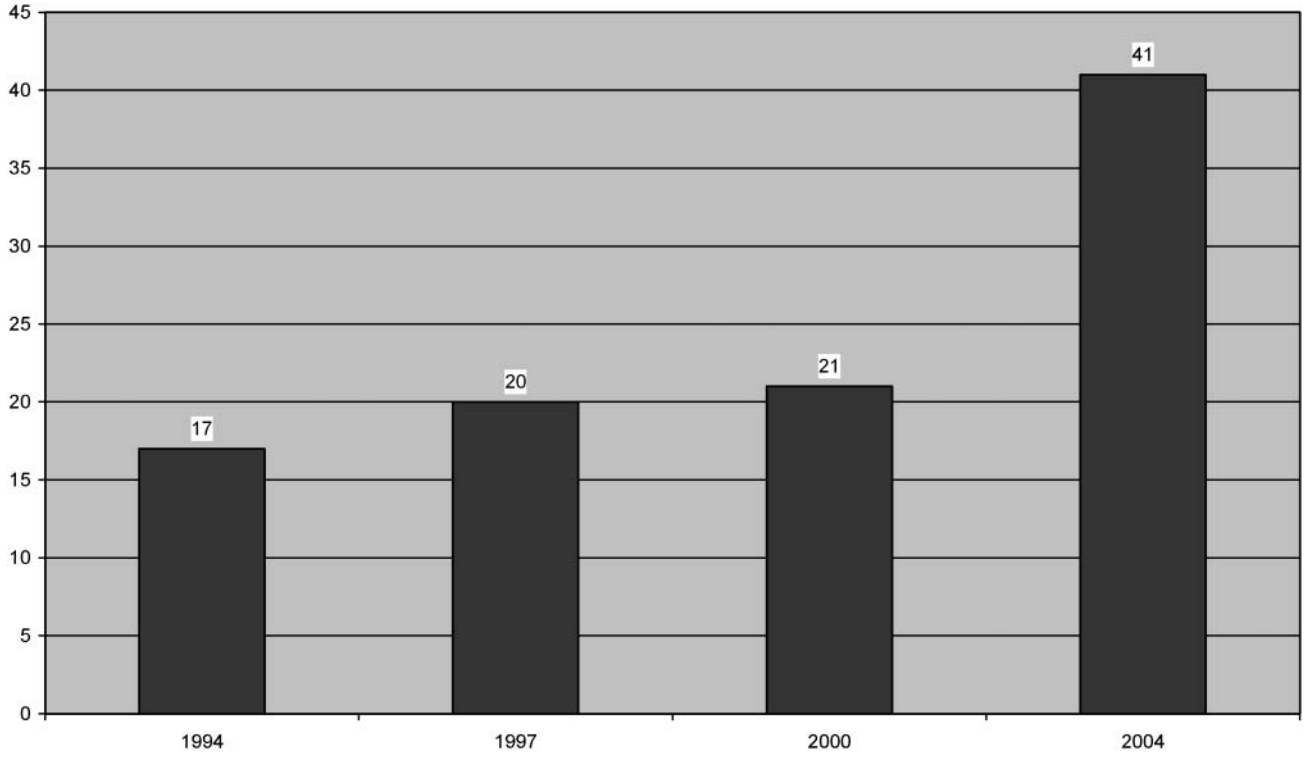
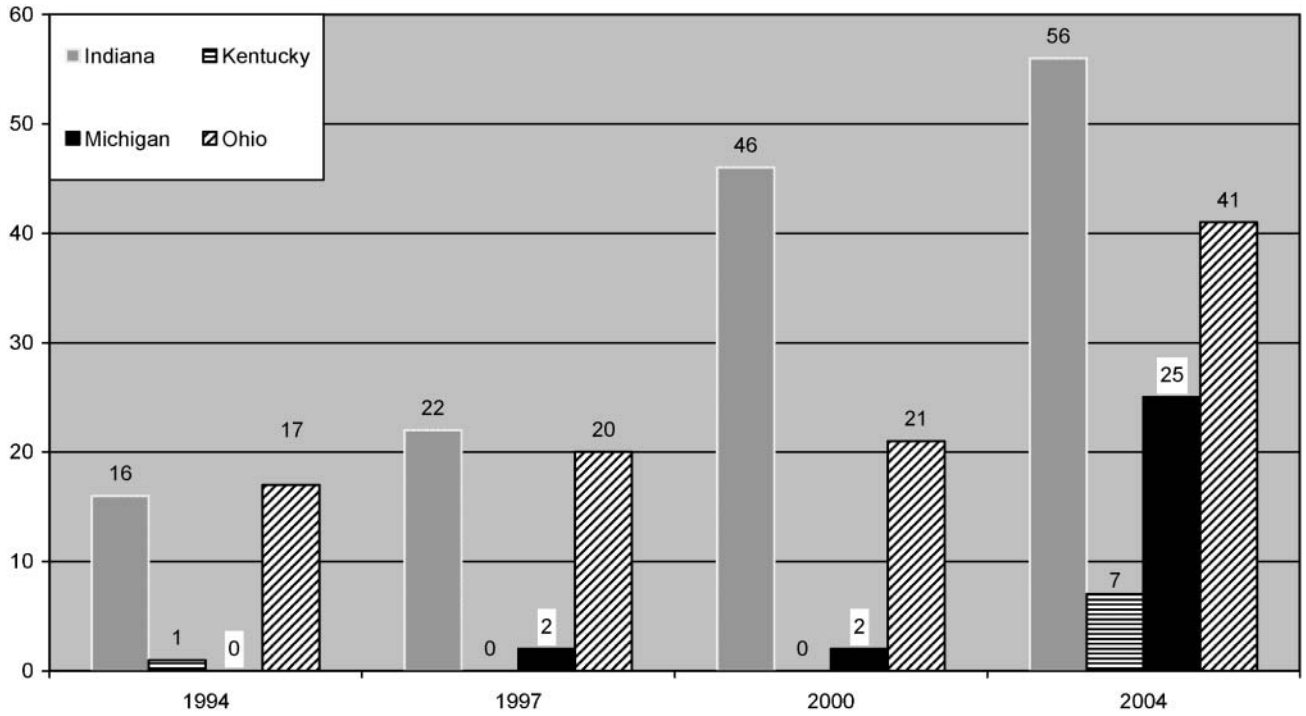


Graph 4: Ohio Supreme Court Online Citations 1994–2004



Graph 5: Electronic Citations 1994–2004

there is no clear indication as to the authoritative weight these high courts have placed on them. For academic law libraries this means that electronic citations have not supplanted traditional citations, nor is there a strong indication that they will do so anytime soon. The numbers indicate that these courts still prefer to cite to traditional materials, despite increasing availability of electronic resources. This conclusion is not only supported by the citations statistics but by the content of electronic resources. As one observer

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argues, although the internet is a valuable resource for legal researchers, its varied content has not inspired complete confidence.[48] Simply put, electronic resources require more scrutiny from the legal researcher, not less, than the traditional print authorities.[49]

VI. Conclusion

To paraphrase Thomas Hobbes "… to be cited regularly, is felicity; to be cited most, bliss; not to be cited at all, death."[50] The study represents the first comparative accounting relied upon most heavily by the Indiana, Kentucky, Michigan and Ohio Supreme Courts between 1994 and 2004. The general premise was that the ratios and types of legal authorities cited by the four supreme courts are going to be statistically very similar, if not virtually identical.

This general premise was shattered from the very beginning of the study, when the results revealed that judicial opinions, the most cited authority by all four courts, was disproportionately more often cited by the Michigan Supreme Court than any of the other three studied benches. This supreme court found case law the most compelling source of all, nearly 3:1 over any other authority. For the other three supreme courts, case law also registered as the single most preferred authority, but its preference as an authority was slightly higher than 50% of the time.

Between 1994 and 2004 the supreme courts generally cited to state court cases in a pretty consistent fashion. The Ohio and Indiana Supreme Court cited to state court decisions some 47% of the time; the Kentucky Supreme Court cited 49%, and the Michigan Supreme Court cited to state court opinions more than half the time - some 54%. There was no preference for opinions from contiguous versus non-contiguous states. Also, the most cited authority for judicial opinions among all four courts was the highest state court in own jurisdiction.

Among the four studied supreme courts, contrary to the original hypothesis, citations to federal judicial opinions as a percentage of total cited authorities have been inconsistent. The Indiana Supreme Court has cited to federal judicial opinions a little more than 10% of the time while the Kentucky Supreme Court and the Michigan Supreme Court cited to federal cases 12% and 19% of the time respectively. The Ohio Supreme Court, on the other hand, has cited to the federal judicial authorities only some 7% of the time. Although a court may be citing a federal court decision because it is influenced by its decision-making process, it may also be citing the decision as an after-the-fact explanation that legitimises a decision reached on separate grounds. In addition, the court may cite the decision to distinguish it from the result reached.

As a result of these findings, future researchers addressing federal court influence may wish to consider moving beyond citation studies. One possible approach is to study the diffusion of federal legislative and administrative innovations. Although the judicial adoption of innovative policies is difficult, some studies have identified patterns of judicial adoptions of innovative policies based on the timing of the decision relative to other states.

As far as secondary sources are concerned, these proved consistently to be the least utilised category of authority by all four supreme courts. The original hypothesis of consistent, if not sparse, citation practices among the four courts held true in this category of authorities. Simply put, scholarly writing has not had a significant effect on any of the four studied high courts between 1994 and 2004.

The next to last category of citations studied encompassed state and federal procedural and ethics rules. These authorities warranted their own category, because they represented a significant percentage of citations for all four courts. It is crucial to note that there were significant variances in the numbers of federal and state court procedure/ethics rule citations by all four courts. This ran contrary to the assumption that the four high courts would exhibit similar if not identical citation practices. The Indiana Supreme Court cited to Indiana as well as federal rules some 18% of the time; the Kentucky Supreme Court cited only about 11% of the time; the Michigan Supreme Court 4%, and the Ohio Supreme Court cited to rules 14% of the time.

The most interesting aspect of this study is the four courts' trend in citing to electronic resources. The overall results matched the hypothesis of exponential growth in this category of citations. Most importantly, the exponential growth was consistent for the case samples selected in all four states.

The increase in the number of electronic resources has made a significant but slow transition into the case citations of the Supreme Courts of Indiana, Ohio, Michigan and Kentucky. Law students and legal practitioners and students must be cautious when citing online resources because there is no clear indication as to the authoritative weight these high courts have placed on them. As far as academic law libraries are concerned, there is no indication that electronic citations have supplanted traditional citations, nor is there any indication that they will do so anytime soon. The numbers from this study suggested that these courts still prefer to cite to traditional materials, despite increasing availability of electronic resources.

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Biography

Dragomir Cosanici is Head of Information Services at the Ruth Lilly Law Library, Indiana University-Indianapolis School of Law, and a Michigan attorney. He would like to thank the Indiana University Library Association (InULA) for their generous Publication Grant, as well as all reviewers for their individual contributions. Special thanks to Ryan Schwier, Okha Bau Okha as well as Chris E. Long.

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