

**THE VOCABULARY OF CONVERSION:
TEXT-MINING THE EAST WINDSOR CONVERSION RELATIONS**

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In 1699, a group of Congregationalists in Windsor Farms, Connecticut, formed the Second Church and Society of Windsor. For the next few years their young minister Timothy Edwards oversaw the admission of new members to the congregation through an exacting process. Whether the incoming members were already members of another church or not, they were required to give a relation of their spiritual progress before the pastor and congregation. In this relation, the laypeople described their spiritual lives at the lowest points of sin, temptation, and despair, as well as their diligent use of the means of grace, and then their moments when they felt that God laid hold on them in his divine grace. The purpose of these relations was to give evidence of God's working as a sign that they might be among the elect. If the relations proved satisfactory, these visible saints would be permitted to own the covenant and become full members of the church, thereby gaining access to the sacrament of the Lord's Supper for themselves, and to the sacrament of baptism for their children.¹

So significant an event was the admission of members to the church that Timothy Edwards wrote down the conversion relations. Over the decades that Edwards was at East Windsor, he recorded many relations, fourteen of which survive in his hand, and one in the hand of the laymen himself.² Nor was Edwards or his congregation unique: fifty-one relations survive from Thomas Shepard's Cambridge congregation in the

seventeenth century, and there are small or large collections of relations from other colonial-era churches.³ These narratives provide an excellent source for the religious experiences of both individuals and congregations. They are one way of coming at the large questions in the history of colonial religion, especially questions of continuities and changes between seventeenth- and eighteenth-century religion. These wonderful sources repay several kinds of research: social analysis, genre studies, and especially close reading. They are also, I think, likely candidates for a new scholarly technique: text-mining.

Text-mining is a relatively recent method of what we might call “distant reading.” By using computers to quantify texts, text-mining allows researchers to discern patterns and trends, similarities and differences. Text-mining is a recent possibility, thanks to the widespread availability of computers and the rapid digitization of texts, but it is an old idea; its roots can be found in the technique of content analysis used by social scientists as early as the 1930s but reaching prominence in the 1960s. The basic technologies behind text mining are in some sense fundamental to the internet, working behind the scenes whenever you run a Google query or whenever your e-mail program filters out spam from genuine e-mails. But scholars, including historians, have recently started to appropriate the technologies of text mining to build their own tools and to do their own research. Text mining is an emerging research technique for historians, one that offers possibilities in need of testing.

This talk will have three sections. First, I want to briefly describe some existing tools for text mining, as well as the text-mining projects of a few historians. I'll use this section to introduce some basic concepts of text-mining. Second, I'll return to the conversion relations from seventeenth- and eighteenth-century New England. I'll use some text-mining tools on the relations, to see what can be learned by that method, and to compare those findings from more traditional methods of scholarship. And third, I'll briefly sketch some conclusions about how text-mining can be best used for religious history, and offer something like a research agenda for religious historians who want to use text-mining.

So let's start with the current text-mining tools and projects that use them.⁴ The first tool I'll mention is also the easiest to use and the most recently released. Google Labs recently released the Google Books NGram Viewer, a tool that lets users chart the frequency of a word or phrase over time in the millions of volumes of the Google Books project.⁵ This is an experimental tool in the first stages of development, but it provides some intriguing possibilities for research. One might search, for example, for the words *God*, *Christ*, and *church* from 1600 to 2000 and compare that data to our periodization of religious history.⁶ Or, we could take a page from Will Herberg, and map the changing relations of *Protestant*, *Catholic*, *Jew/Jewish* in the twentieth-century,⁷ or *Protestantism*, *Catholicism*, and *Judaism*,⁸ or *Christian* and *Jewish*.⁹ Or we might try to get some insight into the so-called Christian nation debate by trying the phrase "Christian nation"¹⁰ or more specifically "America is a Christian nation."¹¹

Two historians at George Mason's Center for History and New Media are doing similar work with text mining, albeit in a more powerful and sophisticated way. Dan Cohen and Fred Gibbs have received a grant from Google, and with it access to all the data of the Google Books project. They are using the Google data to mine all the books from the Victorian era in order to test the basic characteristics of that era, as described in Walter Houghton's *The Victorian Frame of Mind, 1830-1870*.¹² At the risk of oversimplification, we might sum up the kind of analysis provided by Google NGrams and being performed in projects like Cohen's and Gibbs's as a longitudinal analysis of massive amounts of data.

The second tool is MALLET, a tool for topic modeling. MALLET is the creation of Andrew McCallum at the computer science department of the University of Massachusetts at Amherst.¹³ MALLET takes a set of texts and, analyzing them statistically, creates a list of topics. Each topic has a set of keywords associated with it that are statistically likely to be used with one another. So, for example, a topic model on a theological text might have the words "propitiation, sin, Christ, redemption, election" in one topic, and "church, deacon, ordinance, sacrament, creed" in another. Topic modeling is thus a way to summarize a text or set of texts for further analysis.

This type of text mining has been used to good effect by Cameron Blevins, a graduate student in history at Stanford University. Blevins used MALLET to create a series of topics from the raw text of Martha Ballard's diary. These topics he labeled *death, emotion, housework, cold weather*, and the like. He then charted the frequency with which those words appeared over time, and compared his findings to the conclusions of

Laurel Thatcher Ulrich in *A Midwife's Tale*. For example, the terms for *emotion* mapped precisely onto the periods of distress surrounding family problems, and the terms for *housework* went up where the household's productive power declined. I mention Blevins's work as an example of two things. Blevins, like Cohen and Gibbs, shows how text mining can be used to test and verify the conclusions of more traditional scholarship. And Blevins's work also demonstrates the power of text mining when applied intensively to a single source, rather than to a massive data set like the Google Books project.¹⁴

The third tool I want to describe is called Voyeur Tools. This set of tools for text analysis has been created by Stéfan Sinclair, a professor of multimedia at McMaster University, and Geoffrey Rockwell, a professor of philosophy and humanities computing at the University of Alberta. Voyeur permits you to upload your own sets of texts, and to analyze them in a variety of ways. For example, one can examine word frequency, keywords context, collocates of keywords, and the like. It is this tool that I've used for most of my analysis on the East Windsor conversion relations, to which we now return.¹⁵

For the purpose of this paper, and as part of a larger research project into conversion and church membership in East Windsor, I have digitized two sets of conversion relations. The set that I am primarily interested in are the fifteen conversion relations from Timothy Edwards's East Windsor congregation. These relations, which exist in manuscript at the Connecticut Historical Society and in two printed collections edited by Kenneth Minkema, date from 1700 to perhaps 1735, and they are clustered

primarily around 1700-02 and 1722. The second set of fifty-one relations is from Thomas Shepard's Cambridge congregation. These relations are available in a printed collection edited by George Selement and Bruce Wooley in the *Publications of the Colonial Society of Massachusetts*.¹⁶ These relations date from the 1630s and 1640s. Because the two sets of relations involve relatively few texts and because the sets relations are clustered around a few decades rather than spread out over the century that divides them, I have not attempted a longitudinal analysis. Instead, I have text-mined each set of relations, and compared them to one another. I might term this kind of analysis a comparative cross-section, rather than a longitudinal analysis. The goal of analyzing the East Windsor congregations is not to perform a micro-history of a congregation or the texts they produced, but rather to see what kind of connections can be found between the Puritanism of Thomas Shepard's congregation and the early revivalist congregation under Timothy Edwards. What are the continuities and what are the changes between the two sets of relations, and how do these analyses show up in text mining?

Let's begin with a few basic analyses of the texts, before we ask more sophisticated questions.¹⁷ First, we can compare the documents in terms of length. The idea here is to see how long each of the relations might have taken, keeping in mind that Shepard's Cambridge relations exist in a rough, somewhat abbreviated text apparently written while the relations were being given, while the East Windsor relations exist in a fuller version that appears to be a fair copy.¹⁸ The Cambridge relations are about 39,000 words, while the East Windsor relations are about 17,000 words.¹⁹ That breaks down to approximately 765 words per relation in Cambridge, and

1,133 words per relation in East Windsor. If we examine the few longest relations in each congregation, we find a more equal distribution: In Cambridge, the relation of Henry Dunster weighs in at 2,489 words, and the relation of William Manning is 1,824 words.²⁰ In East Windsor, the longest relation is Josiah Loomis's at 2,694 words, and Ann Fitch's relation is 1,681.²¹ Comparing the shortest relations, in Cambridge two relations, which exist in abbreviated form, are less than a hundred words, while the shortest complete relation in East Windsor was 183 words.²² By way of comparison, we can note that the vocabulary density in the East Windsor relations is higher at 94.3 to Cambridge's 77.6.²³ The conclusion I draw is that in general the process of giving a relation took roughly the same amount of time before the congregation in seventeenth-century Cambridge as in early eighteenth-century East Windsor. This is rather different than, say, Haverhill, Massachusetts, where the relations that Douglas Winiarski has studied were considerably shorter.²⁴

From that basic analysis, we can analyze more closely the vocabulary of conversion. I propose to analyze the specific content of three areas: words for God, words for means of grace, and words for awakening or conviction.

The words used for God are chiefly interesting when subdivided into words about God the Father and words about Jesus Christ. On God the Father, the two sets vary slightly. The word *God* is used at approximately the same frequency in both sets of relations, and in both sets it is the first or second most frequently used word.²⁵ A notable difference is that the word *Lord* is the most frequently used word in the Cambridge relations, but it is scarcely used at all in the East Windsor relations. Using

Voyeur's tools to find collocates and keywords in context as a kind of concordance, it can be seen that the word *Lord* is most frequently used for God the Father, though in a significant minority of instances it refers to Jesus Christ.²⁶ We can conclude then that the vocabulary for God the Father, while different, is used with the same relative frequency in both sets of relations.

A similar pattern holds for the words *Jesus* and *Christ*. There is only the slightest of increases in the frequency of the word *Christ* in the East Windsor relations.²⁷ The word *Jesus* is three times more likely to be used in the East Windsor relations as in the Cambridge relations.²⁸ But the relative frequency of that word *Jesus* compared to, say, *God*, is very low. And in the East Windsor relations, according to the use of keywords in context, the word *Jesus* is almost always used with the word *Christ*.²⁹ So, while the word *Christ* is more or less evenly distributed among all the relations, considered individually,³⁰ a few relations account for a disproportionate use of the name *Jesus*.³¹ Why does this matter? A now standard definition of evangelicalism included crucicentrism, or a focus on Christ's work on the cross.³² The evidence from text mining these relations on this point is that there is a continuity in the relative frequency with which *Jesus Christ* is mentioned between the Cambridge and East Windsor relations, albeit with a slight uptick in the later years of the East Windsor relations. While we must of course read texts closely to find out how words are used differently, we can observe that by this measure, at least, there is a strong continuity in the relative crucicentrism of the two sets of relations.

We might look for similar continuities and discontinuities in the use of means of grace, that is to say, the disciplines of prayer, Scripture reading, reading of devotional books, and the like. Means were the crucial element in the believer's progress towards salvation, and parishioners were encouraged by their ministers to diligently use means. Using a variety of keywords, we can see test how often people giving relations mentioned using means:

- sacraments: *sacrament(s)*;³³ *ordinance(s)*;³⁴ *baptism, baptize(d)*;³⁵ *Lord's, supper*³⁶
- sermons: *sermon, sermons*;³⁷ *preaching, preached, preacher, preach*³⁸
- church Sabbath observance: *Sabbath*;³⁹ *God's people, people of God*;⁴⁰ *church*⁴¹
- godly advice: *advice, advise*;⁴² *counsel, counsel(l)ed, counsels*⁴³
- catechism: *catechism, catechized, catechizing*⁴⁴
- prayer: *pray, prayer, prayer, prayers, prayed*⁴⁵

From analyzing these keywords we see that the sacraments were mentioned more by the Cambridge relations; sermons and preaching were mentioned about equally and very frequently in both sets of relations; church and Sabbath observance were about evenly distributed; counsel and advice spiked in the East Windsor relations; catechisms were rarely mentioned in either set of relations; and prayer was about evenly distributed. We can conclude, I think, that both congregations were about constant in their use of means, that that method of devotion and lived religion persisted into the eighteenth century.

Finally, we can text-mine a set of words relating to awakenings. By using the word *awakening*, I don't necessarily mean to imply the term *Great Awakening*, although it is clear that some of the later relations from East Windsor are part of the First Great Awakening. Rather, by awakening I mean to ask whether the conversions were consciously viewed by the laypeople giving the relations as a kind of collective experience, in which several or many people would be converted at the same time. The following words in the East Windsor relations seem to indicate that type of an awakening:

- *awakening, awakened, awakenings, awake, awaked, awaken, awaken'd*⁴⁶
- *stir*⁴⁷
- *sickness, contagion*⁴⁸

From this preliminary evidence we can conclude that the vocabulary of conversion included a new term in the eighteenth-century East Windsor relations: a *stirring* or *awakening*, as a collective and not an individual experience. To be sure, group awakenings were something that could come in a response to a natural disaster, like the 1727 Lynn End and Haverhill awakenings in response to an earthquake, and there is evidence within the East Windsor relations of a contagion that produced conversions as well as sickness.⁴⁹ But we see here, I think, an important discontinuity between the seventeenth-century Cambridge relations and the eighteenth-century East Windsor relations. Anne Brown and David Hall have argued that conversion and application for full membership in early New England was part of a "family strategy," so that conversions usually came after the birth of a first child to ensure that the child had

access to the sacrament of baptism.⁵⁰ If conversion was tied to the life-cycle in early New England, by the seventeenth century it seems to have become a social event in the sense that conversions often occurred in groups: what had been an event in the life of an individual became an event in the life of the community. While text mining is hardly the last word on this question, it does provide a significant piece of evidence.

In summary, I want to sketch a few ideas for the future of text-mining and religious history, on the basis of both the few text-mining projects I described earlier and these experiments with the Cambridge and East Windsor conversion relations.

First, text-mining should be done in a dialectic with more traditional scholarship. Distant reading must be anchored in the detailed understanding of texts provided by close reading, while close reading can benefit from the context and long-term analysis that distant reading can provide. Text-mining can provide questions that are best answered by moving to specific passages and detailed readings, while close reading of texts can raise questions for which text-mining can provide evidence.

Second, text-mining is a way to verify conclusions drawn from more traditional scholarship. Mixing modes of scholarship, like mixing asset types in a portfolio, is a way to maximize the payoff while minimizing risk. Combining humanist and social scientific ways of reading texts can test the conclusions that each method draws. Just as Cohen and Gibbs are testing the stereotypes of the Victorian era, and as Blevins tested the conclusions drawn from Martha Ballard's diary, so religious history can test its conclusions via text-mining. This verification works in both directions: as text-mining

demonstrates the accuracy of existing scholarship, so text-mining gains credibility as a scholarly method.

Finally, the best way to mix close and distant reading is to use text-mining as a kind of concordance to large bodies of texts. Ben Schmidt, who has done a great deal of work on text-mining at his blog *Sapping Attention*, calls this assisted reading rather than text-mining.⁵¹ The text-mining tools currently available permit scholars to look at texts as a whole and examine word use and frequency. These tools, like Voyeur, can also be used to get move from the distant reading to specific passages, through the use of keywords in context or collocates. But text-mining could take a page from software such as that provided for biblical scholarship, such as BibleWorks.⁵² That type of software permits scholars to work from specific passages out to the context and to quantitative analysis of larger texts. Such text-mining software would permit a scholar doing a close reading of a text to have at his or her command a much larger body of texts and the tools to analyze them.

Text-mining is in its earliest stages, for the study of history generally and for religious history in particular. But as texts continue to be digitized and as tools are developed to meet historians' specific needs, text-mining promises to be an effective means of scholarship that supplements without abandoning traditional modes of scholarship.

ENDNOTES

¹ On admission to churches generally, see David Hall, *Faithful Shepherd: A History of the New England Ministry in the Seventeenth Century* (Chapel Hill: University of North Carolina Press, 1972), 93–120.

² Kenneth P. Minkema, “The East Windsor Conversion Relations, 1700-1725,” *Connecticut Historical Society Bulletin* 51 (1986): 7-63; Kenneth P. Minkema, “A Great Awakening Conversion: The Relation of Samuel Belcher,” *The William and Mary Quarterly* 44, no. 1, 3rd ser. (January 1987): 121-126.

³ George Selement and Bruce Woolley, eds., *Thomas Shepard's "Confessions"*, Publications of the Colonial Society of Massachusetts 58 (Boston: Colonial Society of Massachusetts, 1981).

⁴ I have selected only three prominent tools and corresponding projects, while there are dozens of tools available and projects underway. A list of tools is available here:

<https://digitalresearchtools.pbworks.com/w/page/17801708/Text-Analysis-Tools>

⁵ Google NGrams: <http://ngrams.googlelabs.com/>

⁶

http://ngrams.googlelabs.com/graph?content=God,Christ,church&year_start=1600&year_end=2000&corpus=5&smoothing=5

⁷

http://ngrams.googlelabs.com/graph?content=Protestant,Catholic,Jewish,Jew&year_start=1800&year_end=2000&corpus=5&smoothing=5

⁸

http://ngrams.googlelabs.com/graph?content=Protestantism,Catholicism,Judaism&year_start=1776&year_end=2000&corpus=5&smoothing=5

⁹

http://ngrams.googlelabs.com/graph?content=Christian,+Jewish&year_start=1776&year_end=2000&corpus=5&smoothing=5

¹⁰

http://ngrams.googlelabs.com/graph?content=Christian+nation&year_start=1776&year_end=2008&corpus=5&smoothing=3

¹¹

http://ngrams.googlelabs.com/graph?content=America+is+a+Christian+nation&year_start=1776&year_end=2008&corpus=5&smoothing=3

¹² The Victorian Books project is available at <http://victorianbooks.org/about/>. See also Dan Cohen, “Searching for the Victorians,” October 4, 2010, <http://www.dancohen.org/2010/10/04/searching-for-the-victorians/>, which is Cohen’s keynote speech at the 2010 Victorians Institute Conference.

¹³ Andrew Kachites McCallum, *MALLET: A Machine Learning for Language Toolkit*, 2002, <http://mallet.cs.umass.edu>.

¹⁴ Cameron Blevins, “Topic Modeling Martha Ballard’s Diary,” April 1, 2010, <http://historying.org/2010/04/01/topic-modeling-martha-ballards-diary/>. A similar project is underway on text-mining the Richmond *Dispatch* for the years surrounding the Civil War. See Robert K. Nelson, *Mining the Dispatch*, <http://americanpast.richmond.edu/dispatch/>.

¹⁵ Stéfán Sinclair and Geoffrey Rockwell, *Voyeur Tools*, 2011, <http://voyeurtools.org/>.

¹⁶ These texts were digitized via scanning and the use of OCR, which was then manually cleaned up. While the quality of the OCR is not perfect, even after corrections, it is sufficiently accurate that any errors should be inconsequential for this type of analysis.

¹⁷ These corpora are available in four forms, for greater convenience in analyzing certain ways.

Cambridge relations, each relation as an individual text:

<http://voyeurtools.org/?corpus=1293036689292.6285>

East Windsor relations, each relation as an individual text:

<http://voyeurtools.org/?corpus=1292895571346.2030>

Cambridge and East Windsor relations, each set of relations grouped into a single text:

<http://voyeurtools.org/?corpus=1293134100003.7613>

Cambridge and East Windsor relations, each relation as an individual text:

<http://voyeurtools.org/?corpus=1293134234737.1007>

Below I have cited links to each of the *Voyeur* analyzes, which will permit anyone to verify the data. The raw texts for these analyzes are available from the author.

¹⁸ Minkema, "East Windsor Relations," 19. The exception in East Windsor is Samuel Belcher's relation, which exists in his own hand; Minkema, "A Great Awakening Conversion," 122.

¹⁹

<http://voyeurtools.org/tool/CorpusSummary/?corpus=1293134100003.7613&stopList=stop.en.taporware.txt>

²⁰

<http://voyeurtools.org/tool/CorpusGrid/?corpus=1293036689292.6285&sortBy=totalWordTokens&direction=DESC>

²¹

<http://voyeurtools.org/tool/CorpusGrid/?corpus=1292895571346.2030&sortBy=totalWordTokens&direction=DESC>

²²

<http://voyeurtools.org/tool/CorpusGrid/?corpus=1293036689292.6285&sortBy=totalWordTokens&direction=DESC>

²³ This is a unitless measure of analysis. The difference may be due to two factors. First Cambridge has a lower vocabulary because it is a hastier written text. Second, the Cambridge corpus of relations is quite a bit longer, and a larger set of texts tends to reduce spikes in vocabulary density.

²⁴ Douglas L. Winiarski, "Gendered 'Relations' in Haverhill, Massachusetts, 1719-1742," in *In our Own Words: New England Diaries, 1600 to the Present*, ed. Peter Benes, The Dublin Seminar for New England Folklife, Annual Proceedings 2006 (Boston: Boston University Press, 2008).

²⁵

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134100003.7613&type=god&mode=corpus>

²⁶

<http://voyeurtools.org/tool/DocumentTypeKwicsGrid/?corpus=1293134100003.7613&docIdType=d1292716190591.653c1790-7795-d7a1-7cd6-6afe0b31af46%3Alord> Collocates:

<http://voyeurtools.org/tool/DocumentTypeCollocateFrequenciesGrid/?corpus=1293134100003.7613&docIdType=d1292716190591.653c1790-7795-d7a1-7cd6-6afe0b31af46%3Alord>

²⁷

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134100003.7613&type=christ&mode=corpus>

²⁸

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134100003.7613&type=jesus&mode=corpus>

²⁹

<http://voyeurtools.org/tool/DocumentTypeKwicsGrid/?corpus=1293134100003.7613&docIdType=d1292716190>

³⁰

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=christ&mode=corpus>

³¹

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=jesus&mode=corpus>

³² For the definition, see D. W. Bebbington, *Evangelicalism in Modern Britain: A History from the 1730s to the 1980s* (Boston: Unwin Hyman, 1989), 1-17; Mark A. Noll, *The Rise of Evangelicalism: The Age of Edwards, Whitefield, and the Wesleys*, *A History of Evangelicalism: People, Movements, and Ideas in the English-speaking World* (Downers Grove, IL: InterVarsity Press, 2003), 16-19.

³³

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=sacrament&type=sacraments&mode=corpus>

³⁴

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=ordinance&type=ordinances&mode=corpus>

³⁵

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=baptism&type=baptized&type=baptize&mode=corpus>

³⁶

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=supper&mode=corpus>

³⁷

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=sermon&type=sermons&mode=corpus>

³⁸

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=preaching&type=preached&type=preach&type=preacher&mode=corpus>

³⁹

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=sabbath&mode=corpus>

⁴⁰

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=people&mode=corpus>

⁴¹

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=church&mode=corpus>

⁴²

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=advice&type=advise&mode=corpus>

⁴³

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=counsel&type=counseled&type=counselled&type=counsels&mode=corpus>

⁴⁴

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=catechising&type=catechism&type=catechizing&mode=corpus>

⁴⁵

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=prayer&type=pray&type=prayers&type=prayed&type=praying&mode=corpus>

⁴⁶

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=awakening&type=awakened&type=awakenings&type=awake&type=awaked&type=awaken&type=awaken'd&mode=corpus>

⁴⁷

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=stir&type=stirred&mode=corpus>

48

<http://voyeurtools.org/tool/TypeFrequenciesChart/?corpus=1293134234737.1007&type=sickness&type=contagion&mode=corpus>

⁴⁹ Kenneth P. Minkema, "The Lynn End "Earthquake" Relations of 1727," *The New England Quarterly* 69, no. 3 (September 1996): 473-499; Winiarski, "Gendered 'Relations' in Haverhill, Massachusetts, 1719-1742."

⁵⁰ Anne S. Brown and David D. Hall, "Family Strategies and Religious Practice: Baptism and the Lord's Supper in Early New England," in *Lived Religion in America: Toward a History of Practice*, ed. David D. Hall (Princeton: Princeton University Press, 1997), 41-68.

⁵¹ Benjamin Schmidt, "Assisted Reading vs. Data Mining," *Sapping Attention*, December 30, 2010, <http://sappingattention.blogspot.com/2010/12/assisted-reading-vs-data-mining.html>.

⁵² *BibleWorks*, <http://www.bibleworks.com/>.

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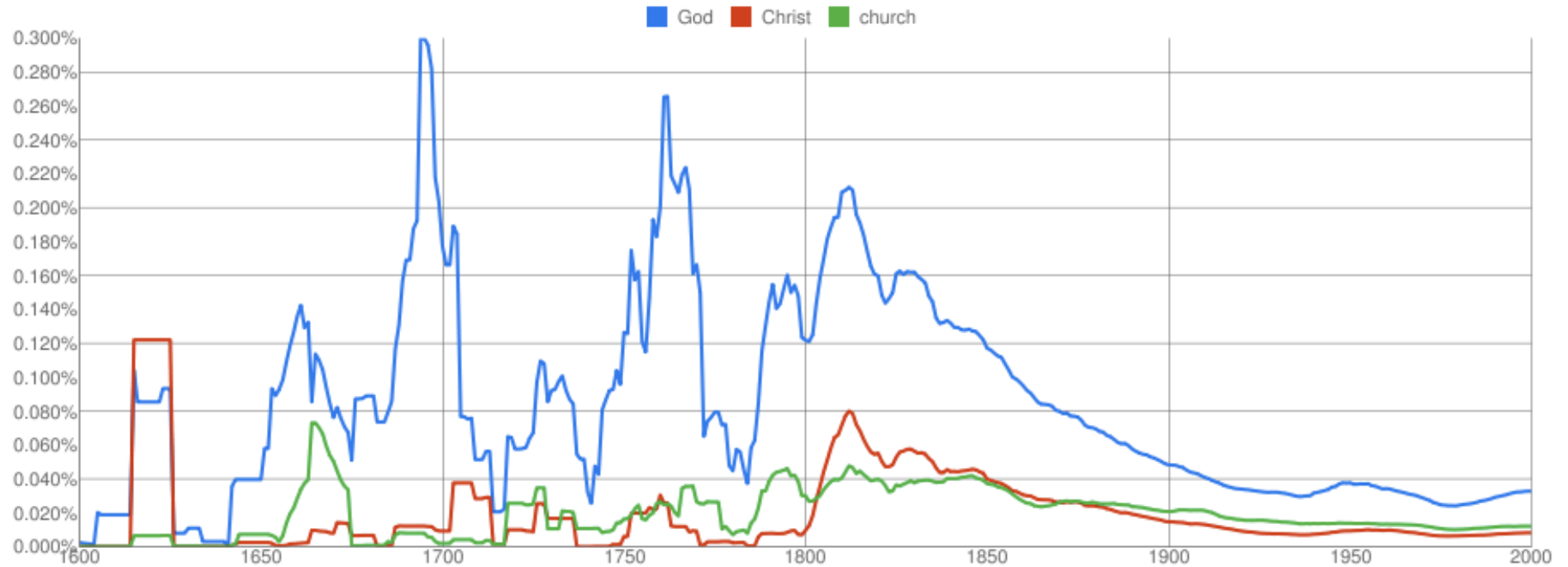


Books Ngram Viewer

Graph these **case-sensitive** comma-separated phrases:

between and from the corpus with smoothing of .

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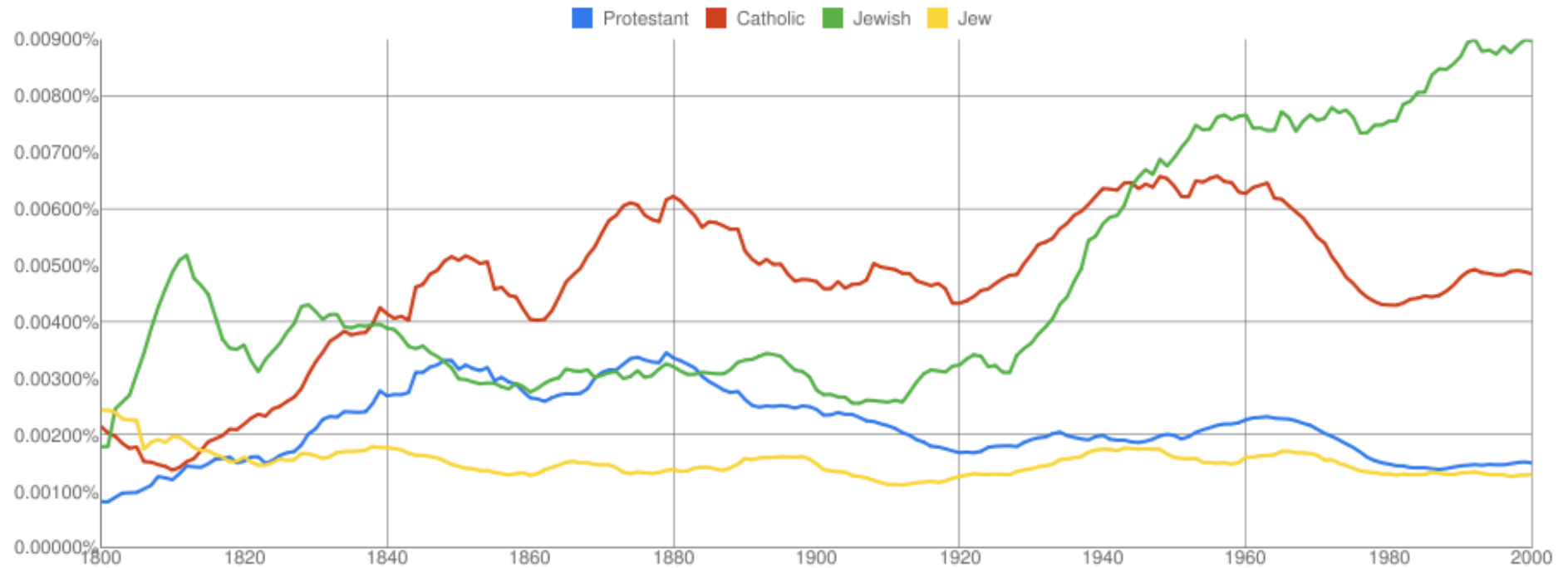


Books Ngram Viewer

Graph these **case-sensitive** comma-separated phrases: Protestant,Catholic,Jewish,Jew

between 1800 and 2000 from the corpus American English with smoothing of 5.

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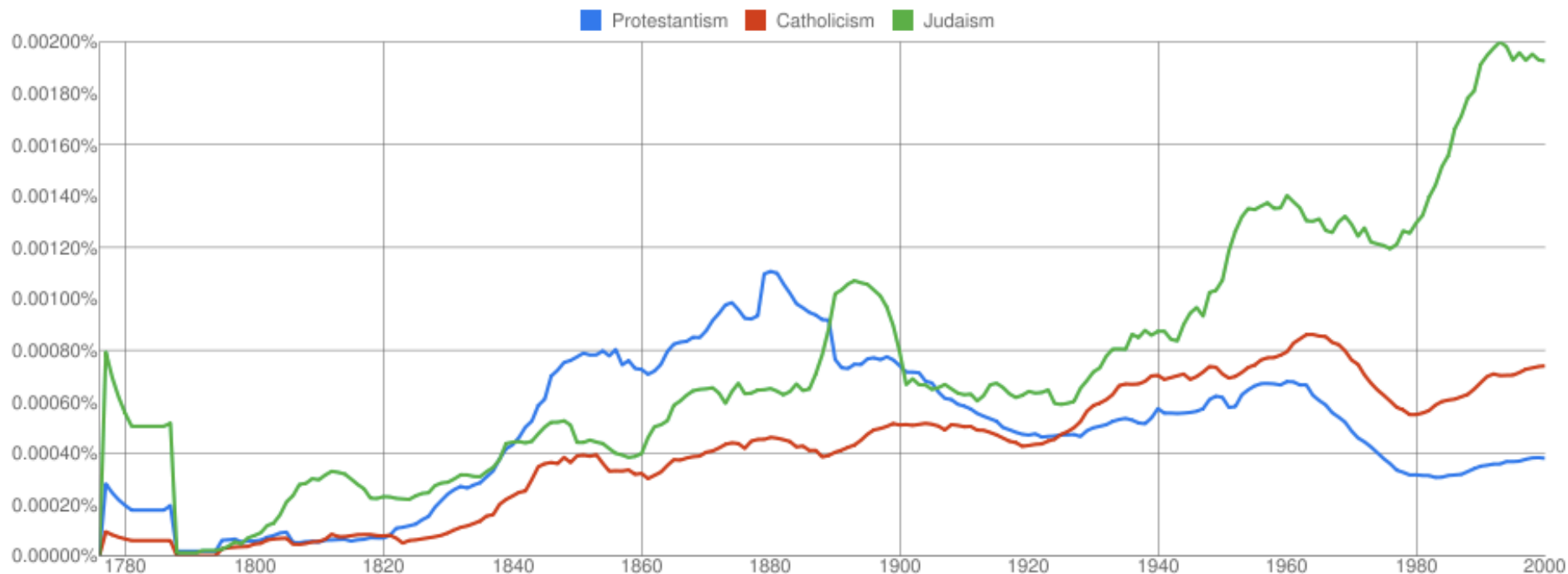


Books Ngram Viewer

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between and from the corpus with smoothing of .

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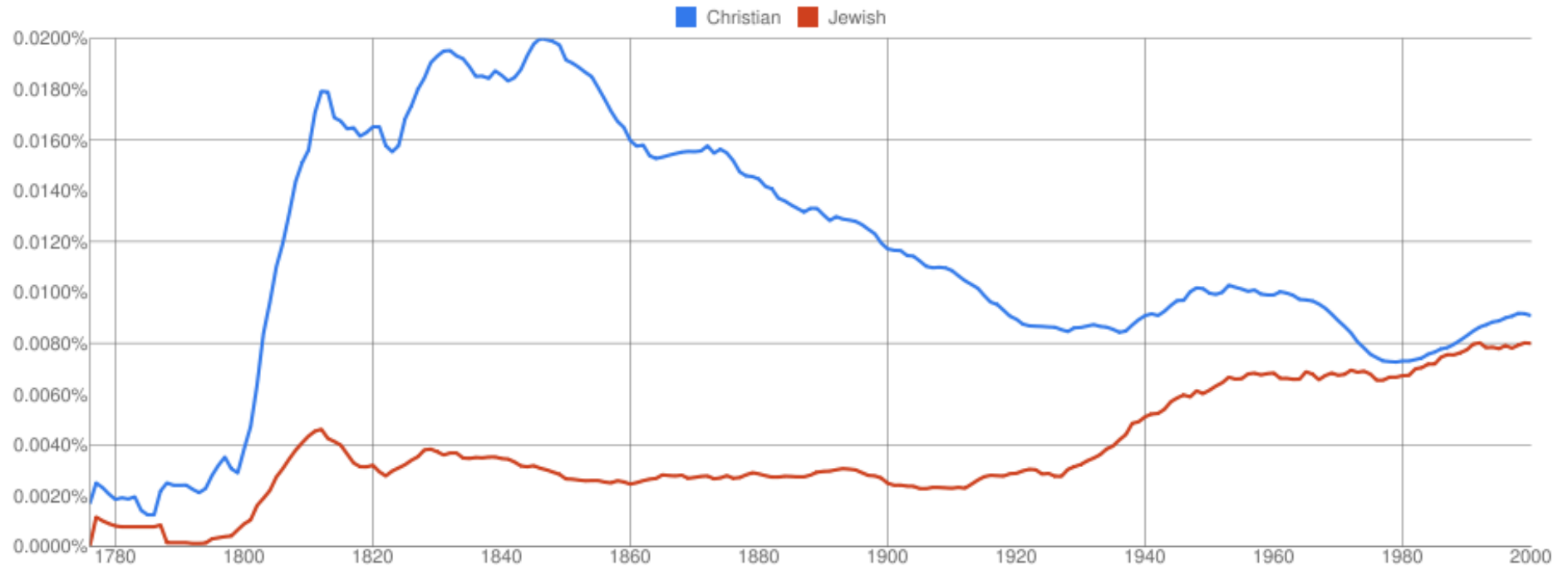


Books Ngram Viewer

Graph these **case-sensitive** comma-separated phrases:

between and from the corpus with smoothing of .

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Voyeur Tools: Reveal Your Texts

Words in the Entire Corpus

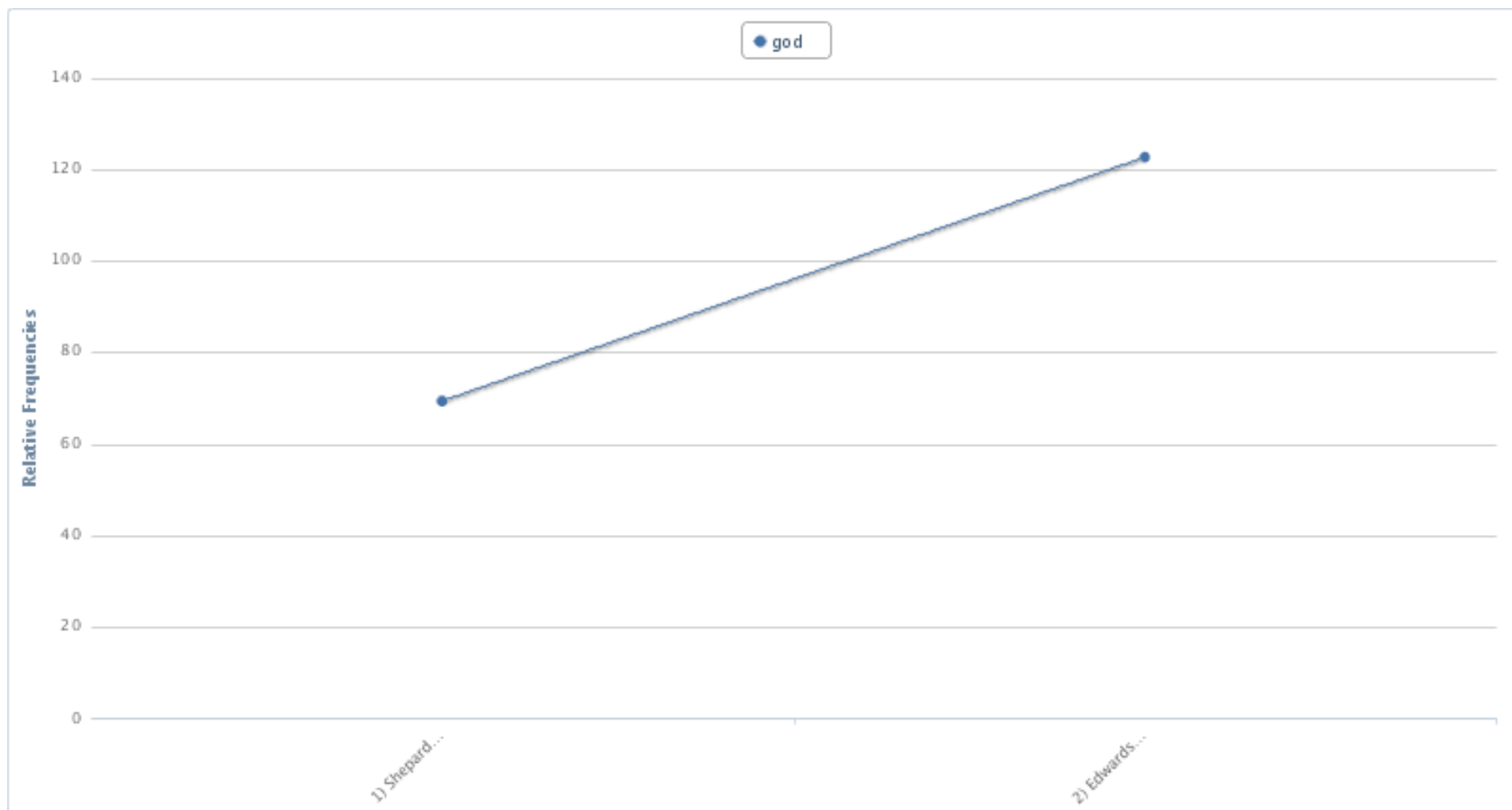
Word	Count	Trend
lord	690	
god	496	
thought	413	
christ	385	
heart	312	
saw	274	
hearing	248	
sin	225	
came	181	
time	161	
means	143	
sins	143	
condition	130	
mercy	130	
soul	130	
place	126	
come	122	
went	112	
great	108	
heard	105	
love	105	
word	101	
mr	96	

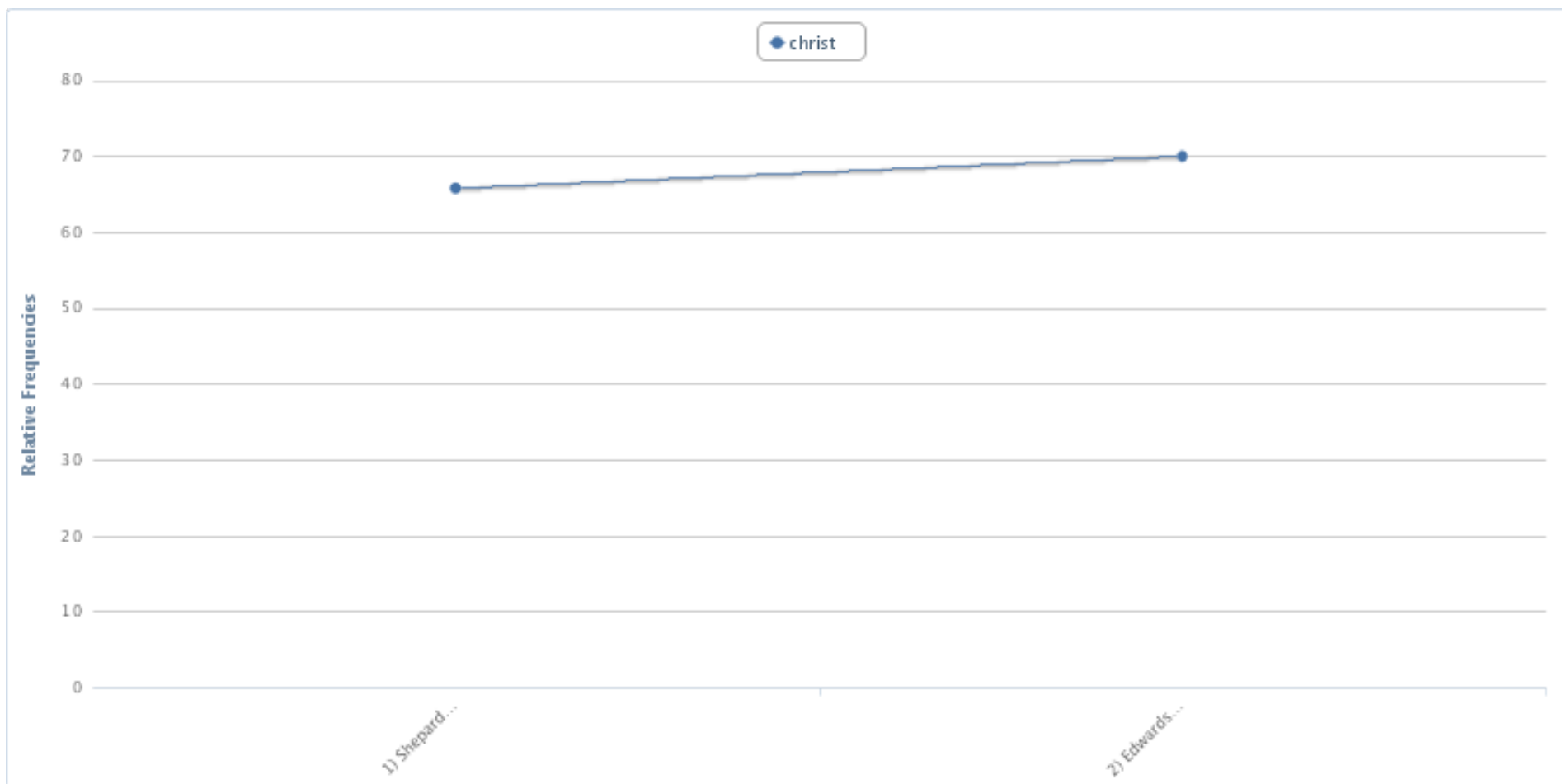
Page 1 of 66 | 1-50 of 3,292 | Search

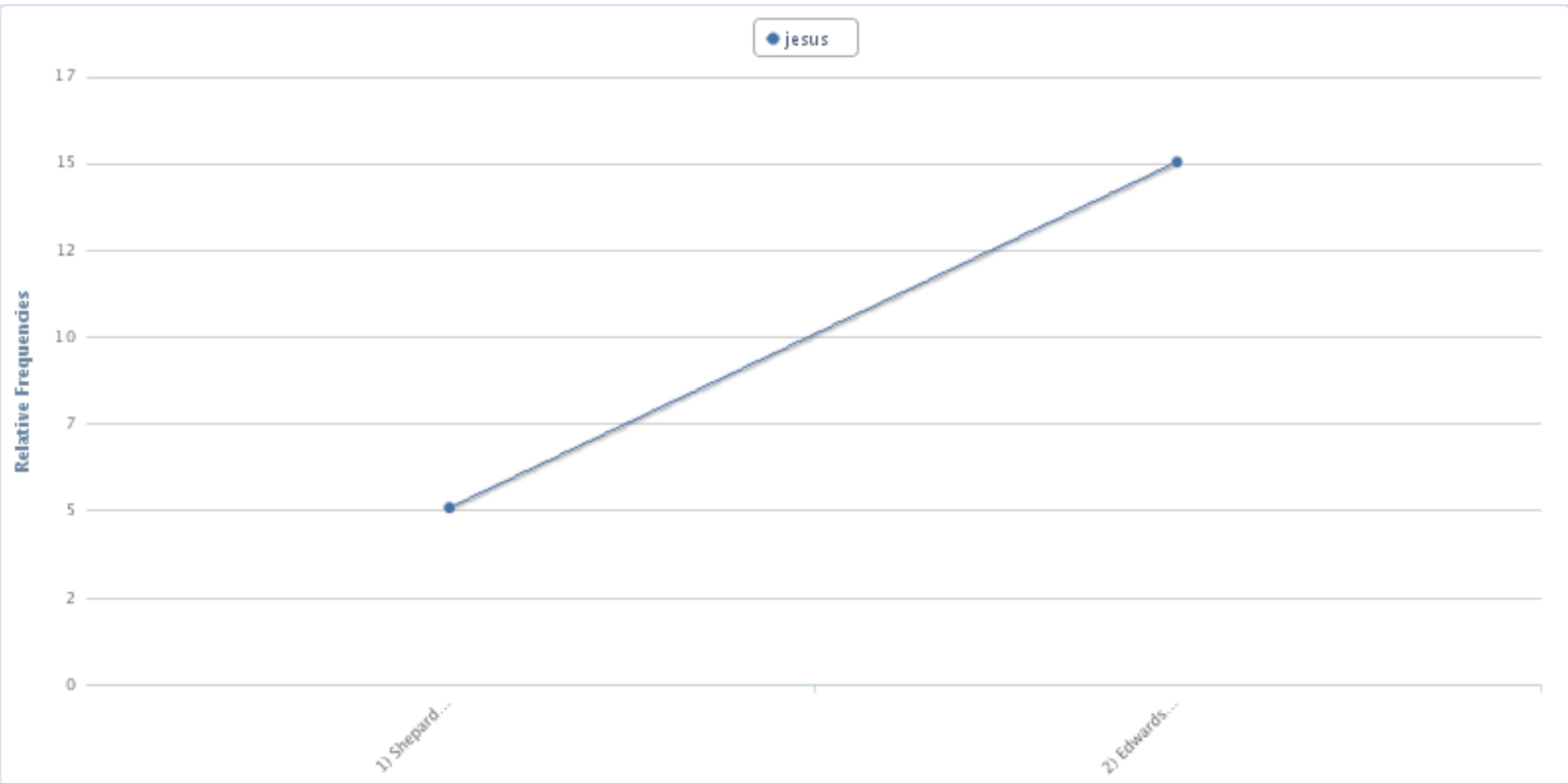
Summary

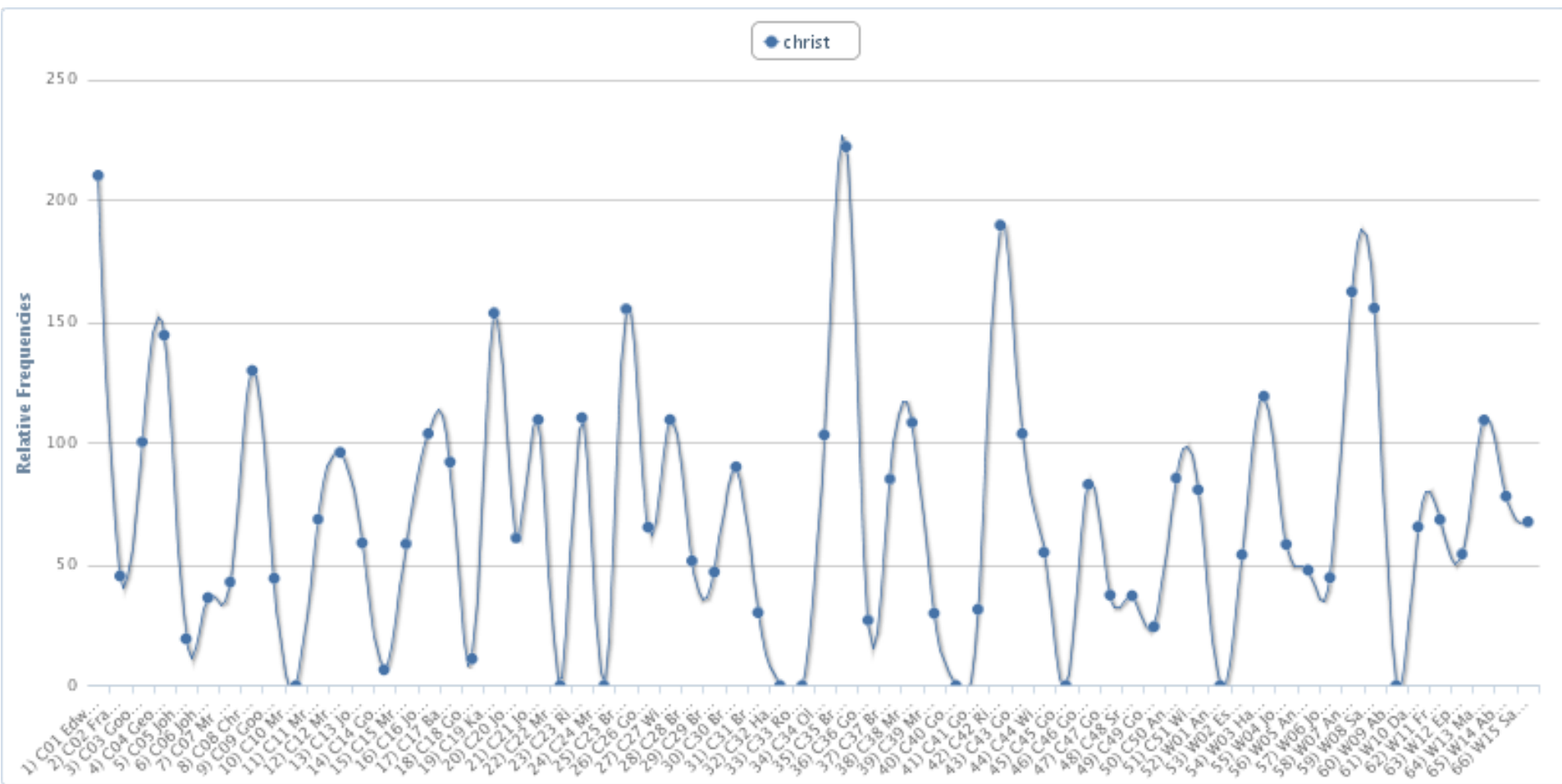
- There are 66 documents in this corpus with a total of 56,556 words and 3,559 unique words.
- Longest documents** (by words): W06 Josiah Loomis (2,694), C38 Mr Dunster (2,489). Shortest documents: C24 Mrs Greene (57), C32 Hannah Brewer (83). All...
- Highest vocabulary density** (by words): C24 Mrs Greene (684.2), C32 Hannah Brewer (638.6). Lowest density: W06 Josiah Loomis (236.1), W14 Abigail Strong (252.1). All...
- Most frequent words** in the corpus: lord (690), god (496), thought (413), christ (385), heart (312). More...
- Words with **notable peaks in frequency** across the corpus: sin (225), god (496), lord (690), christ (385), soul (130). More...
- Distinctive words** (compared to the rest of the corpus)
 - C01 Edward Hall: lord (12), god (1), christ (9), heart (2), saw (7). More...
 - C02 Francis Moore: lord (16), god (3), christ (2), heart (3), hearing (1). More...
 - C03 Goodman Luxford His...: lord (6), god (3), thought (2), christ (7), heart (5). More...
 - C04 George Willows: lord (6), god (2), thought (2), christ (5), heart (2). More...
 - C05 John Sill: lord (27), god (12), thought (10), christ (3), heart (12). More...
 Next 5 of 61 remaining

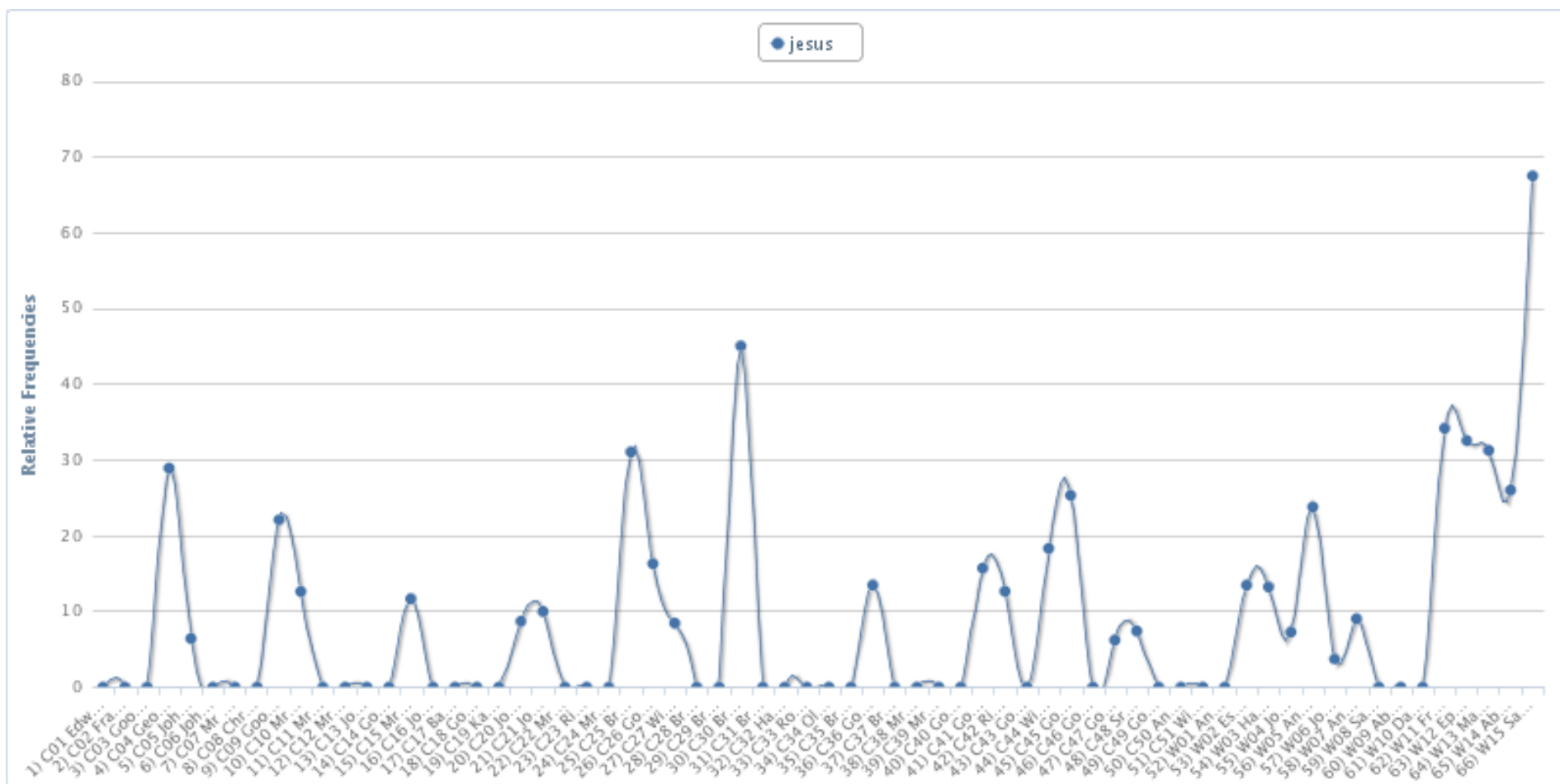
Voyeur Tools, Stéfan Sinclair & Geoffrey Rockwell (©2011) v. 1.0 beta (2609)

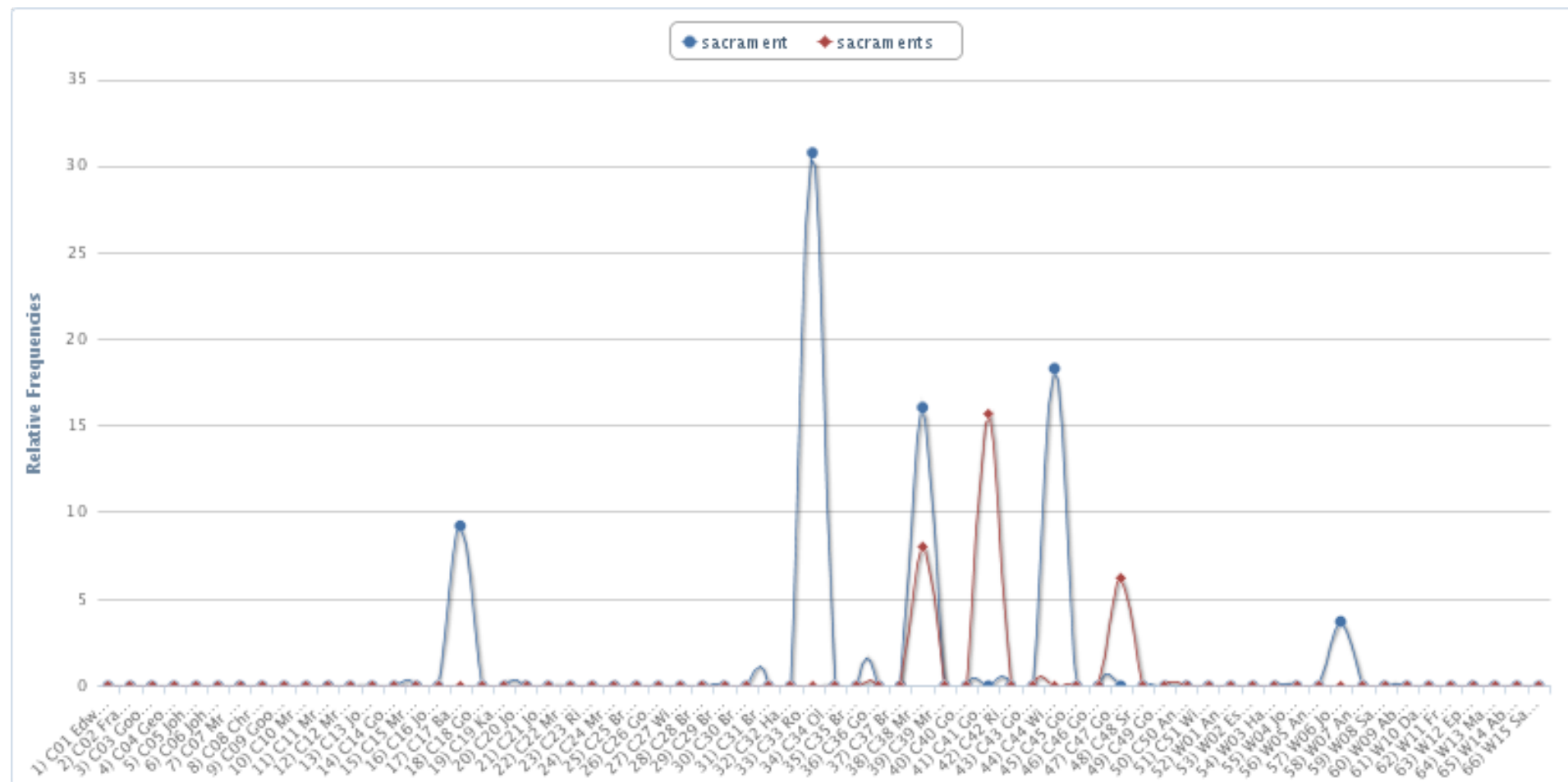


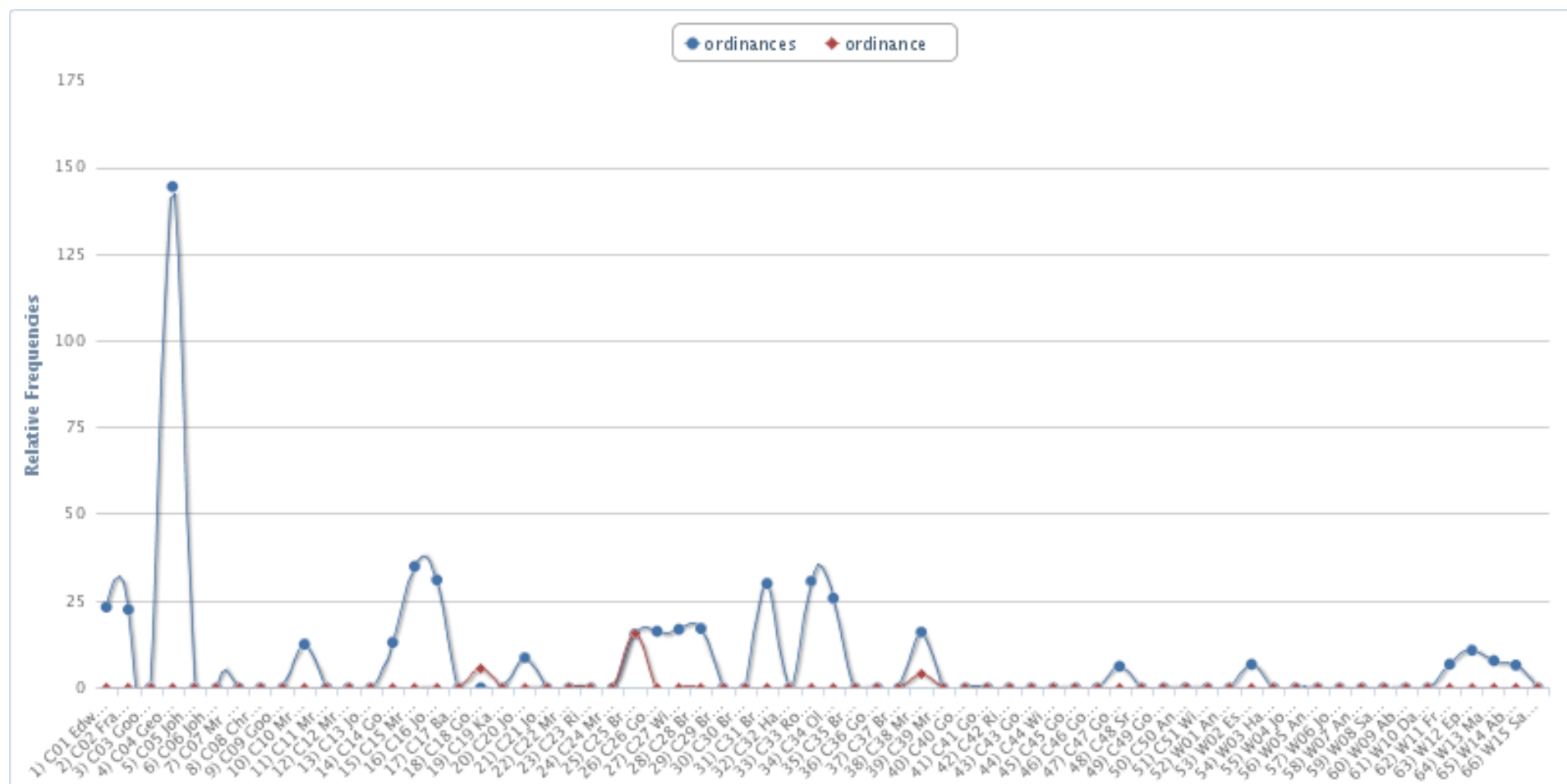


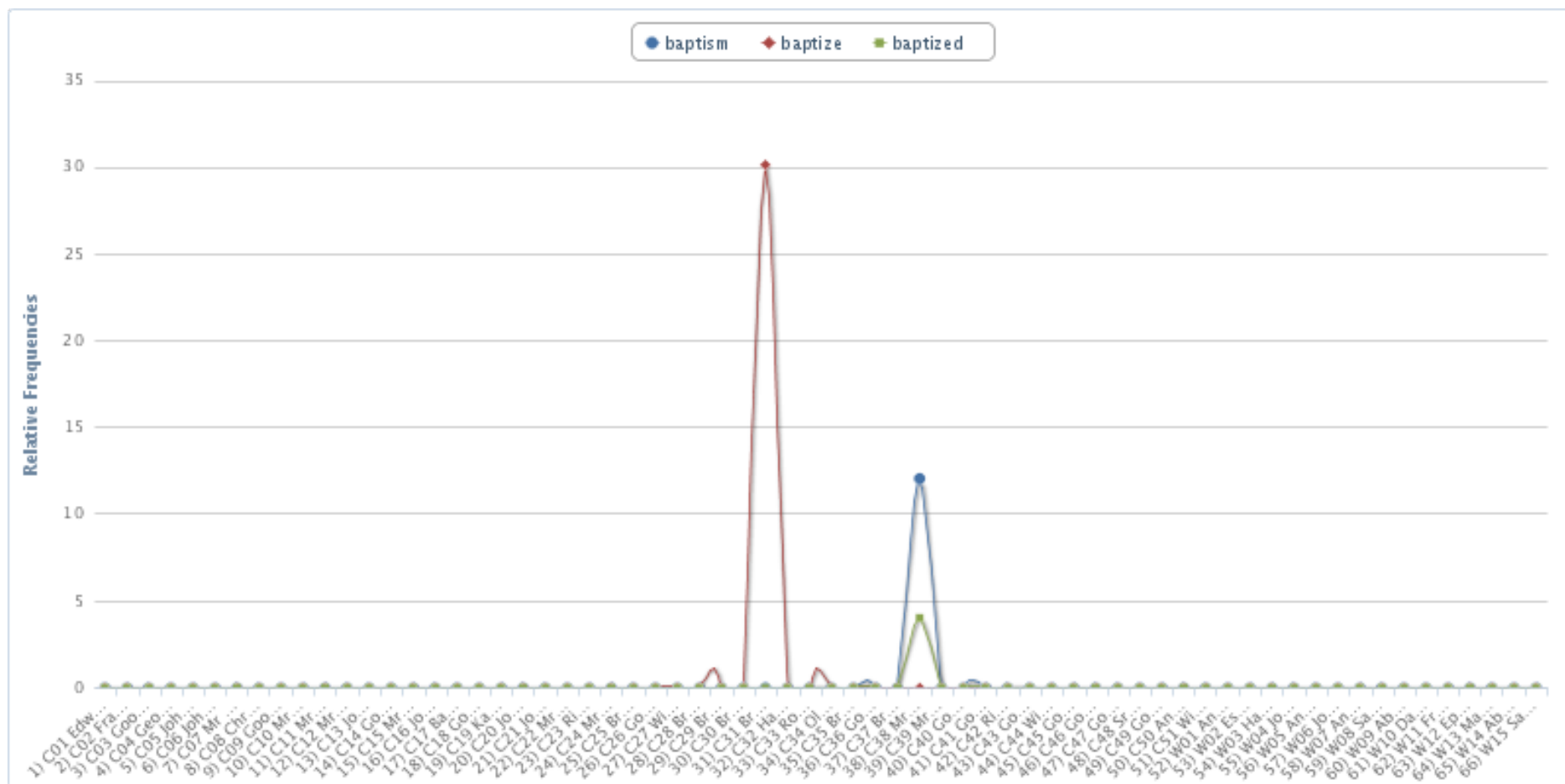


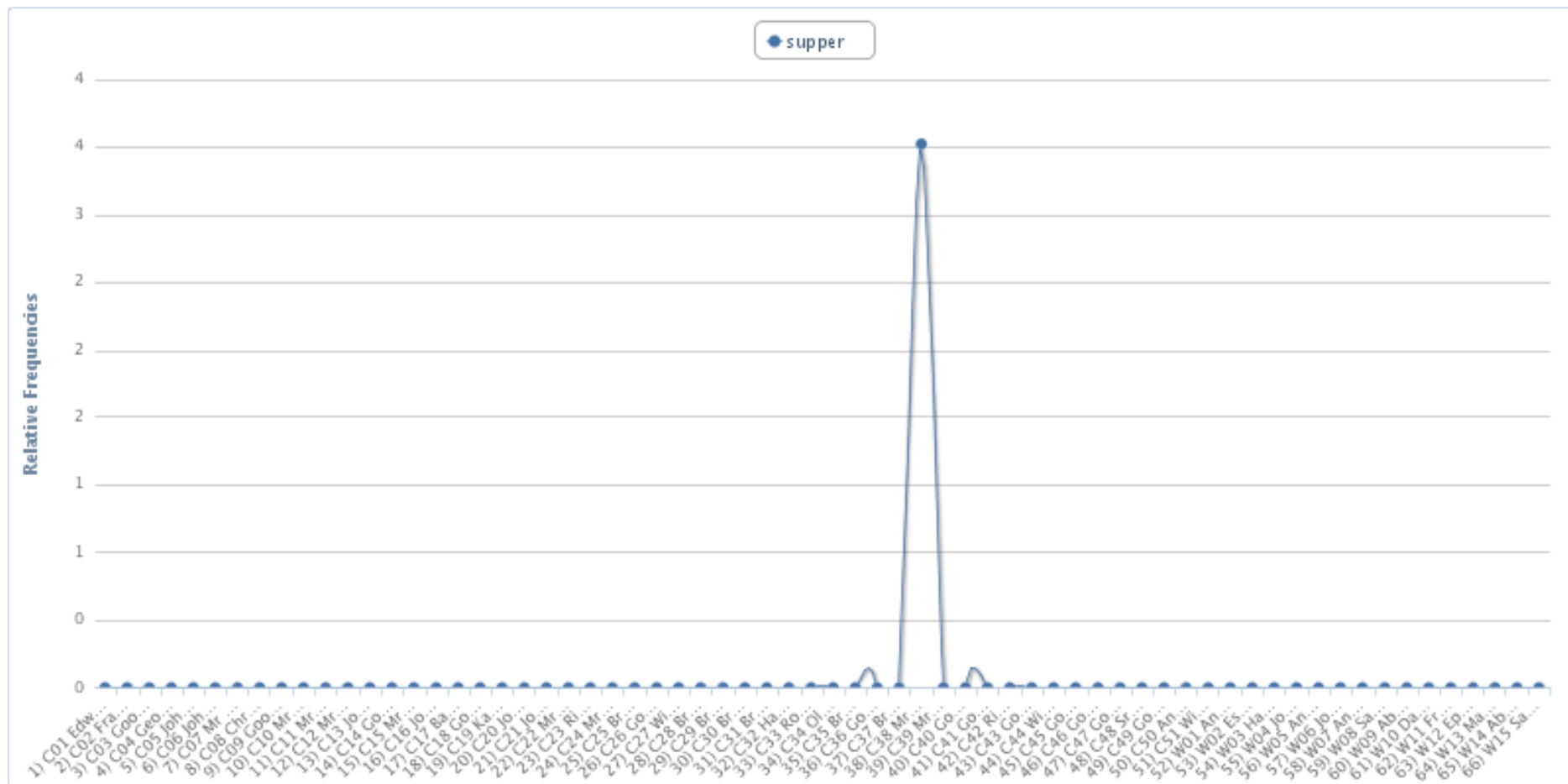


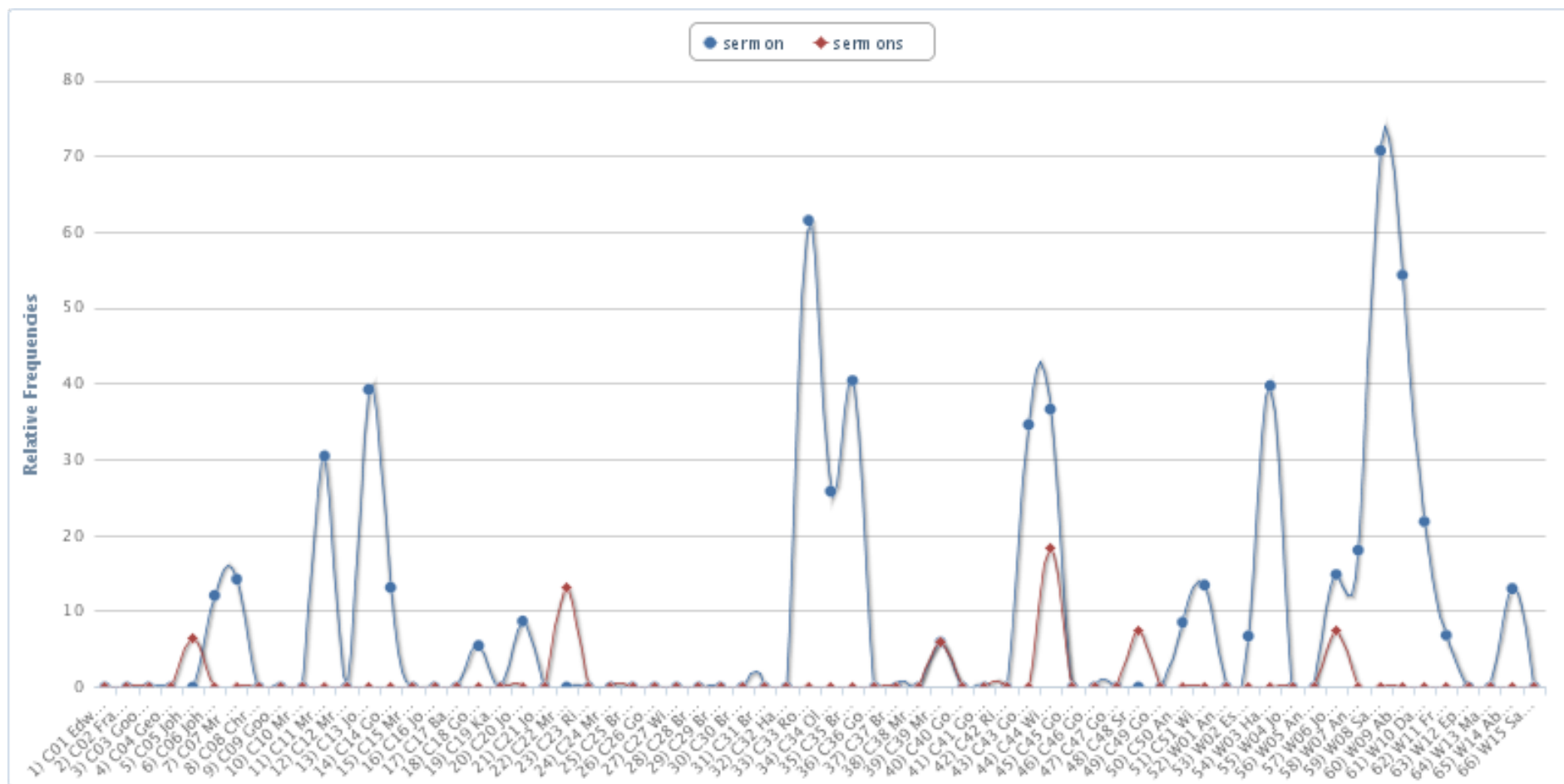


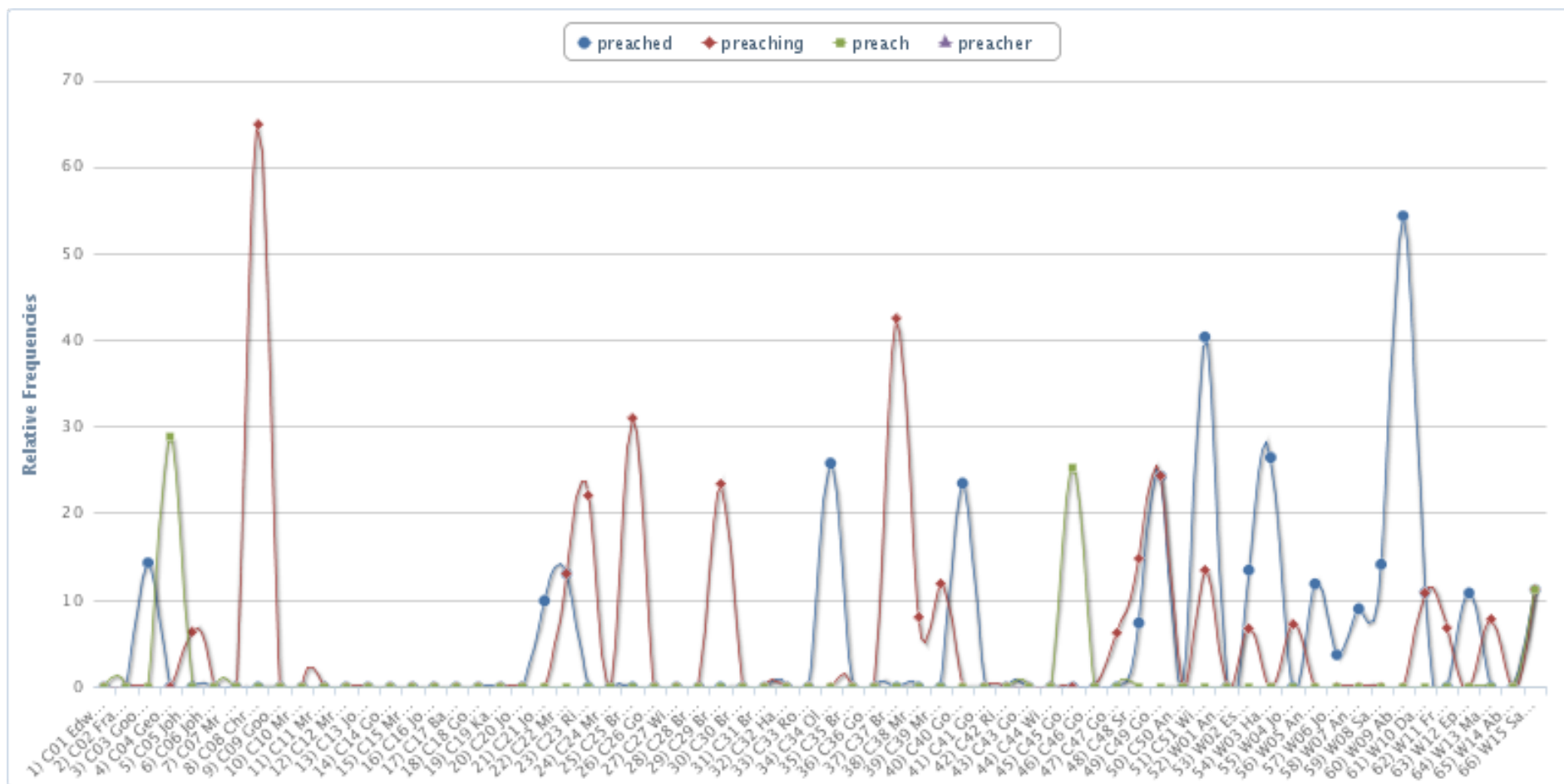


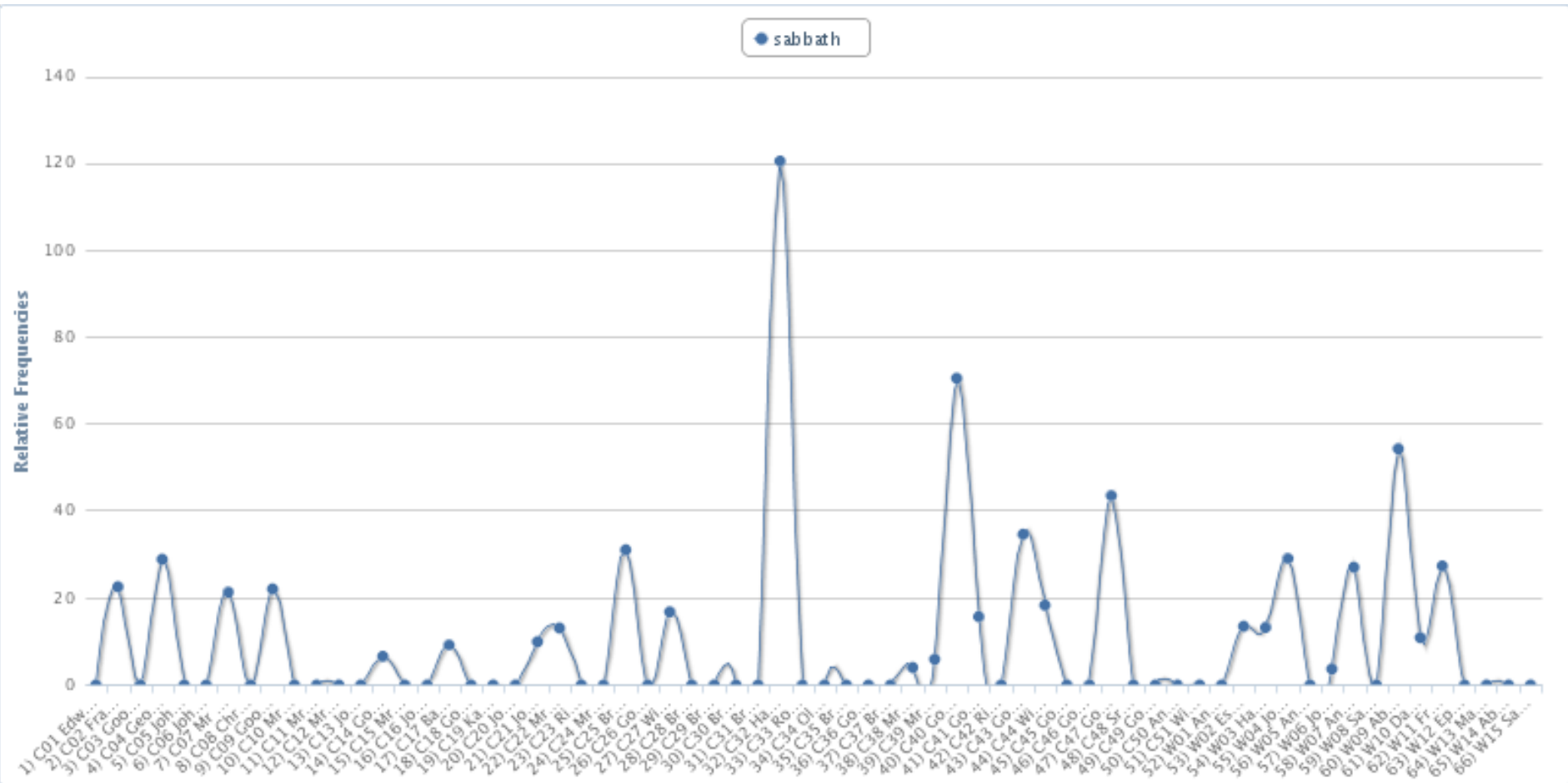


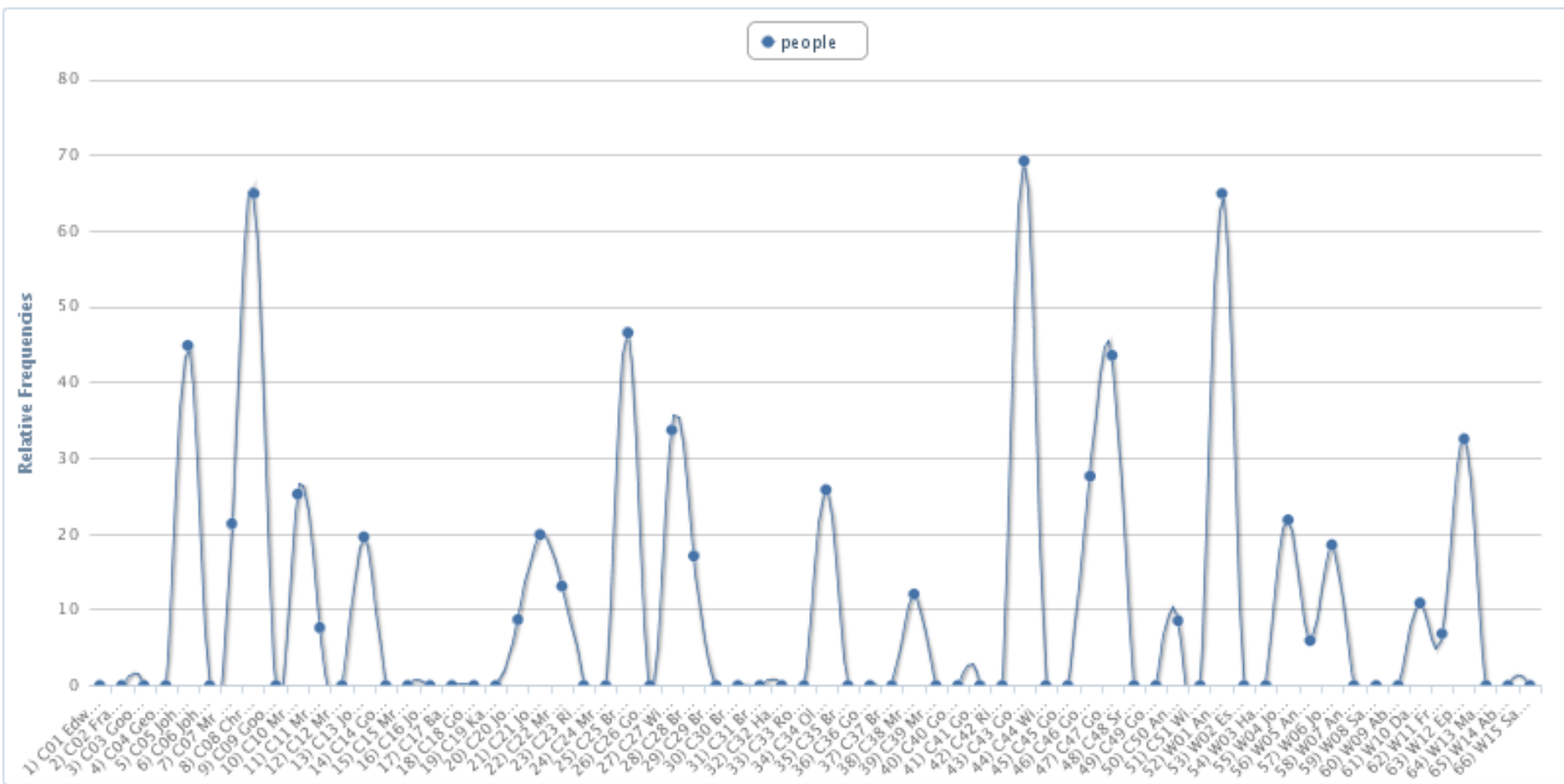


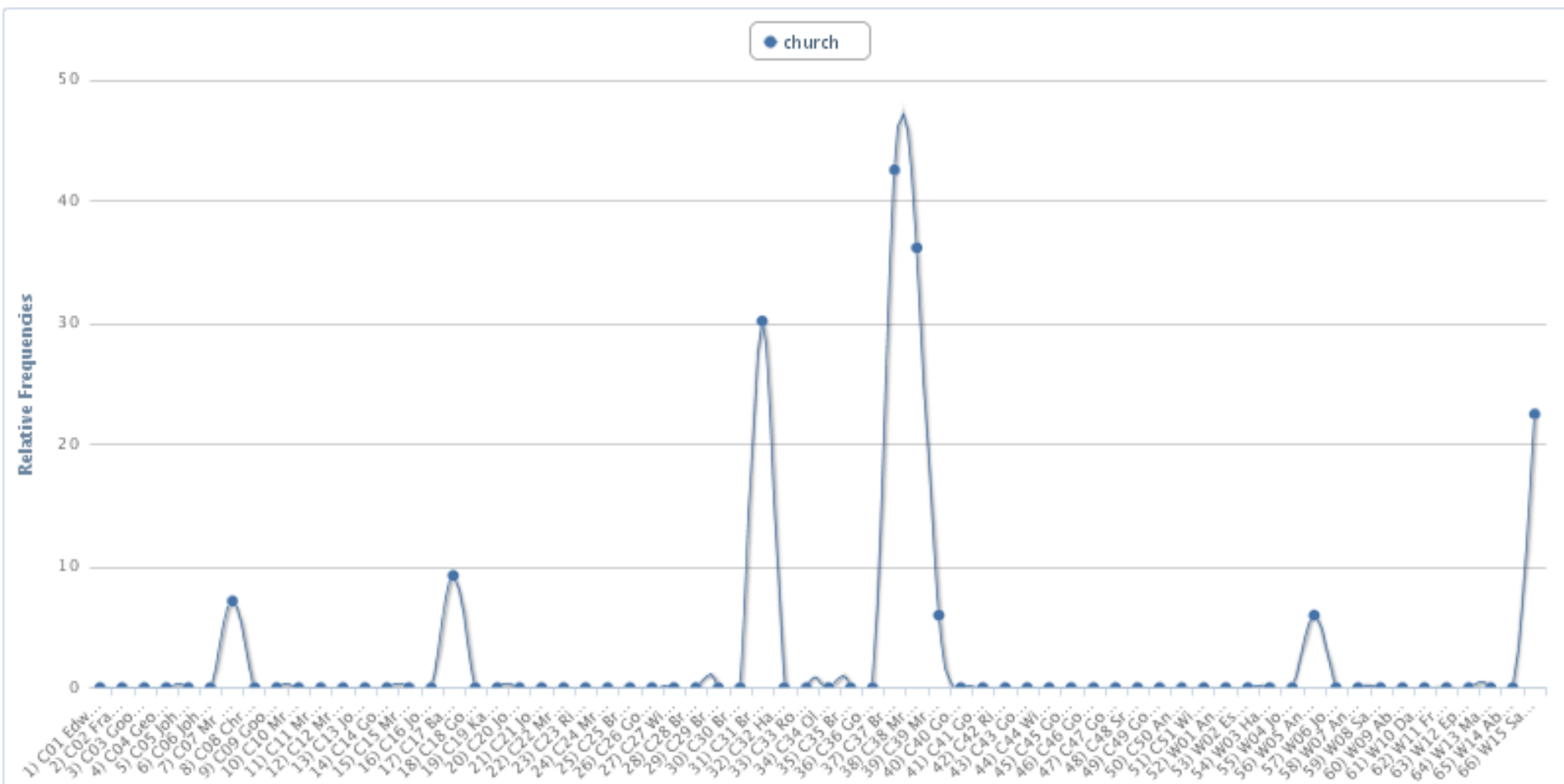


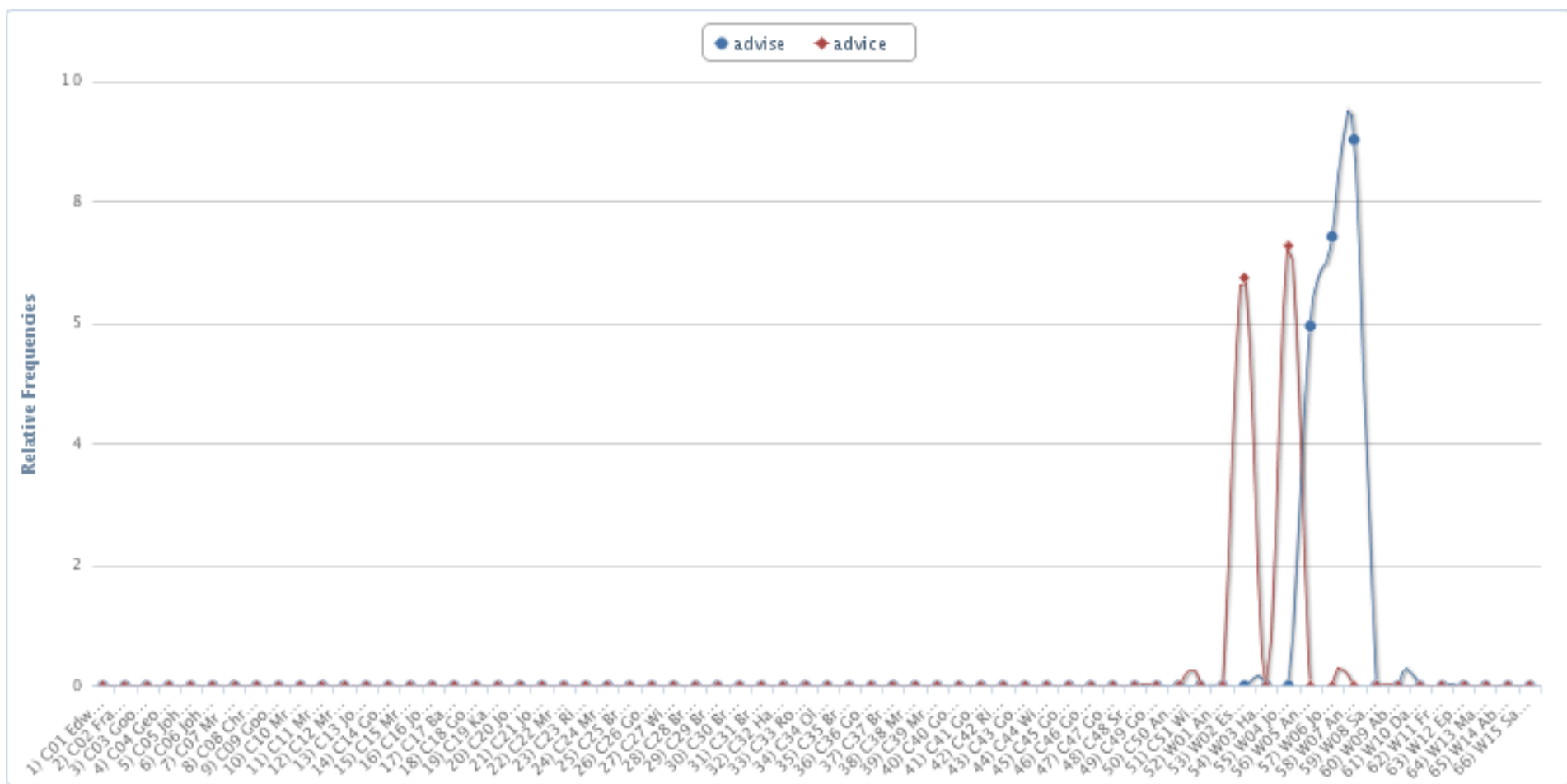


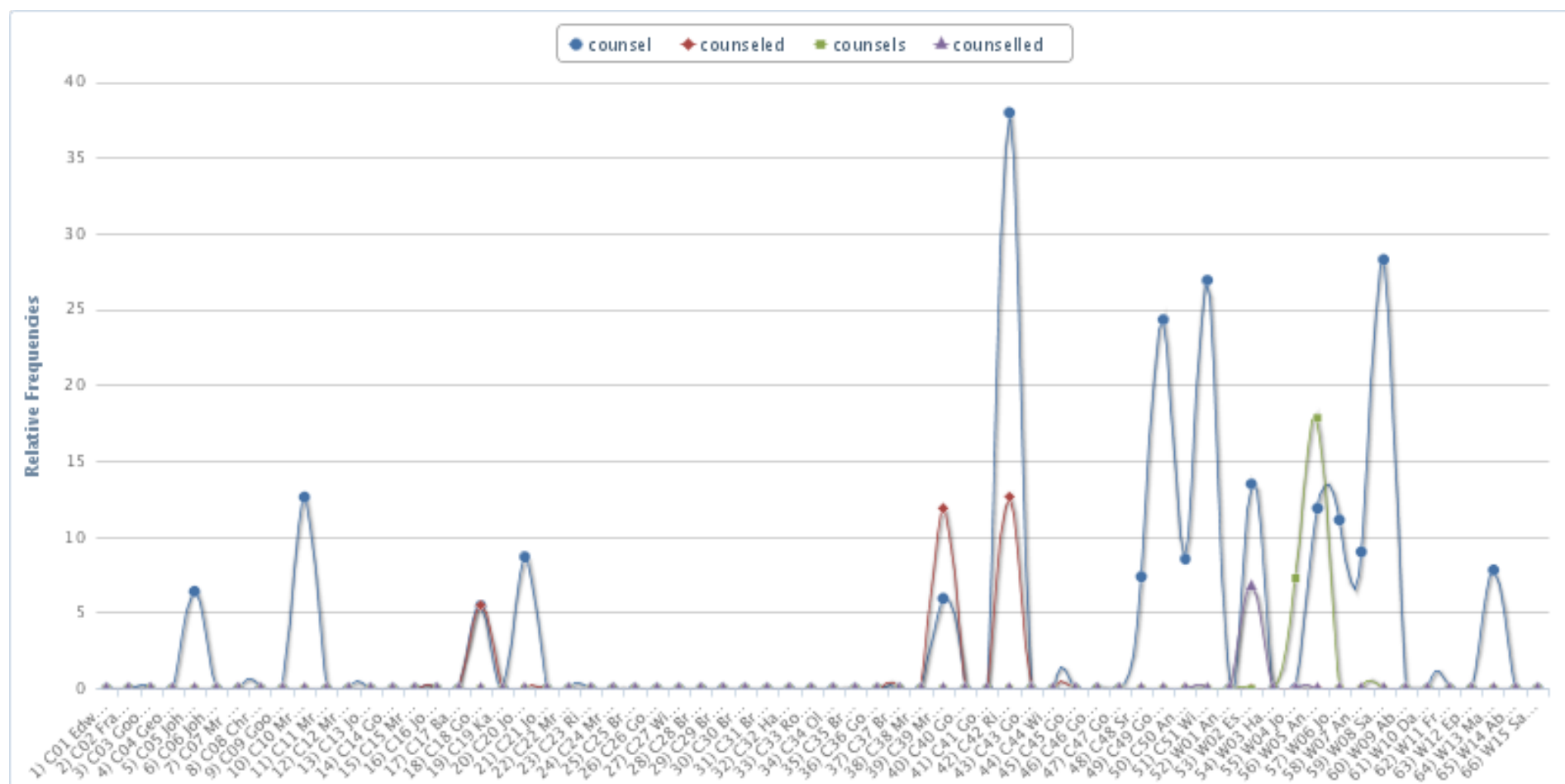


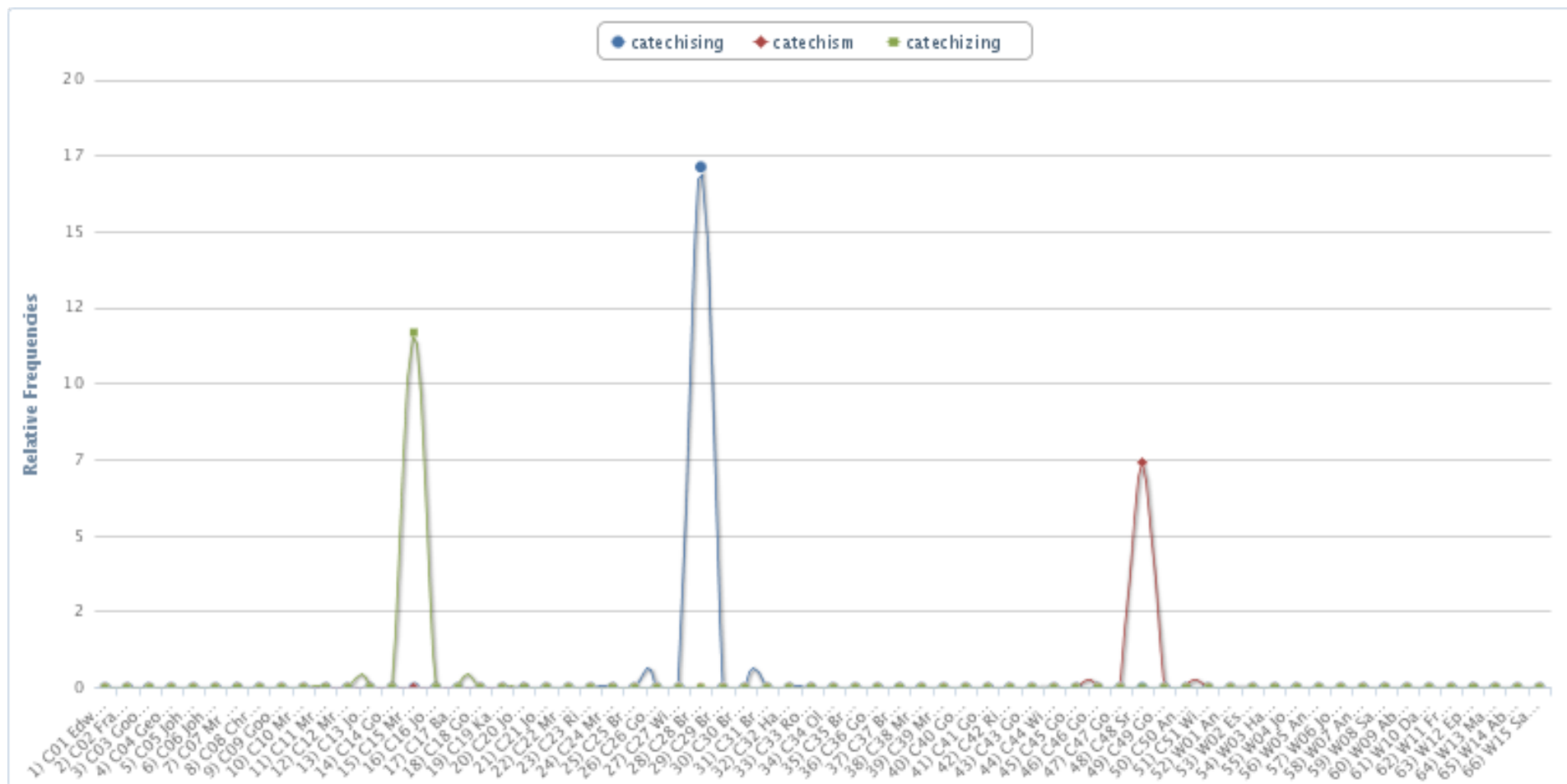


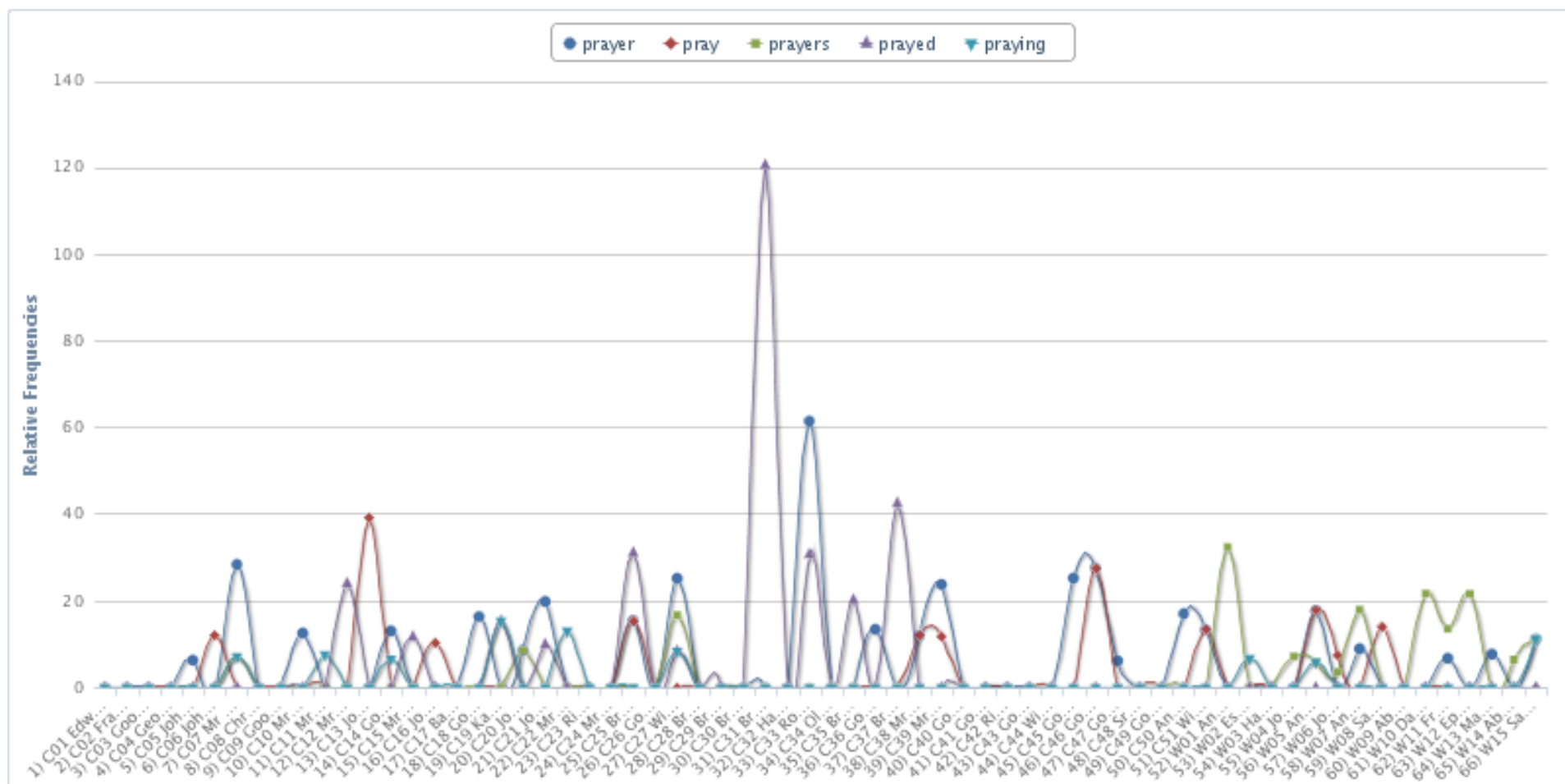


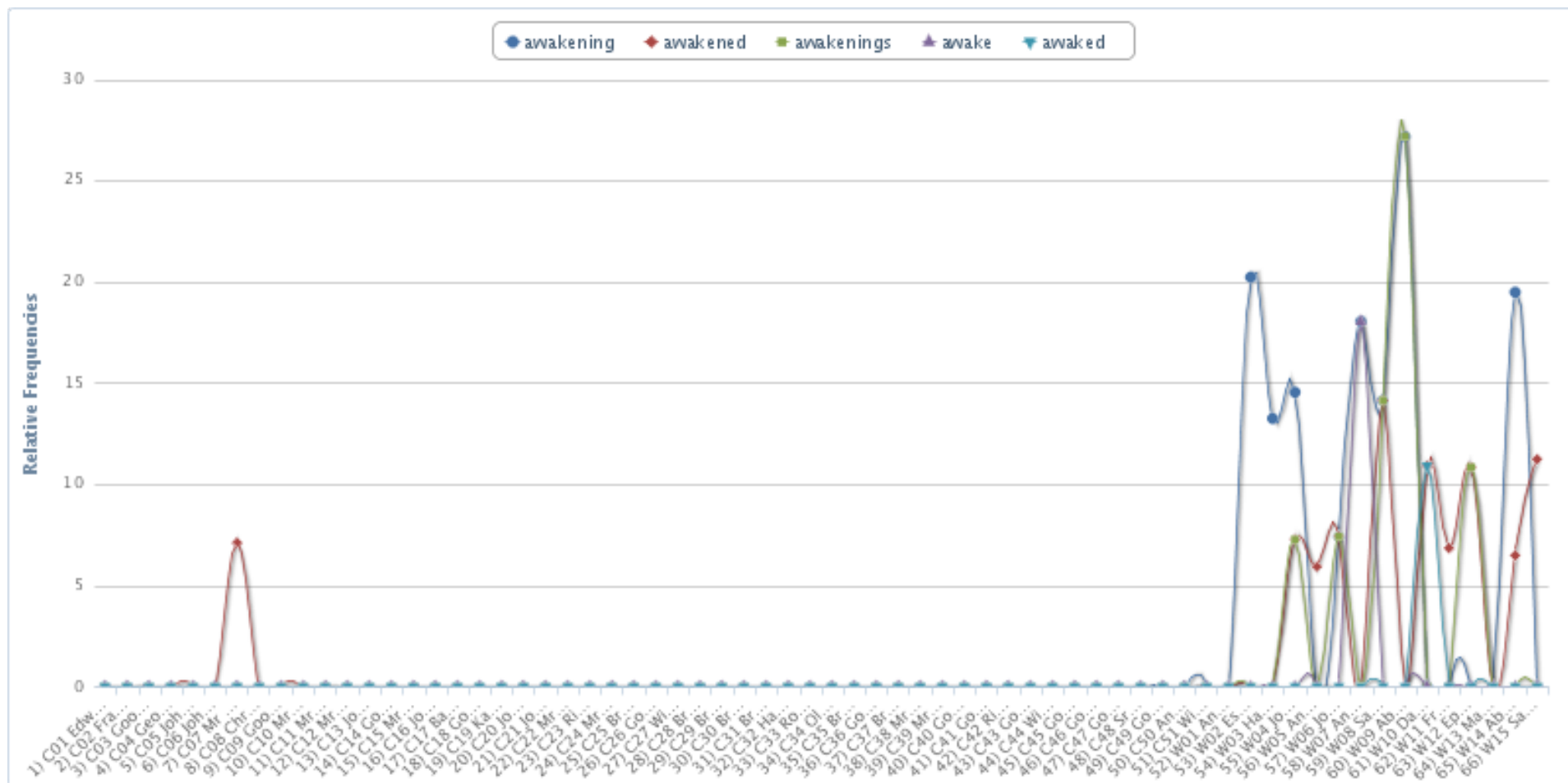


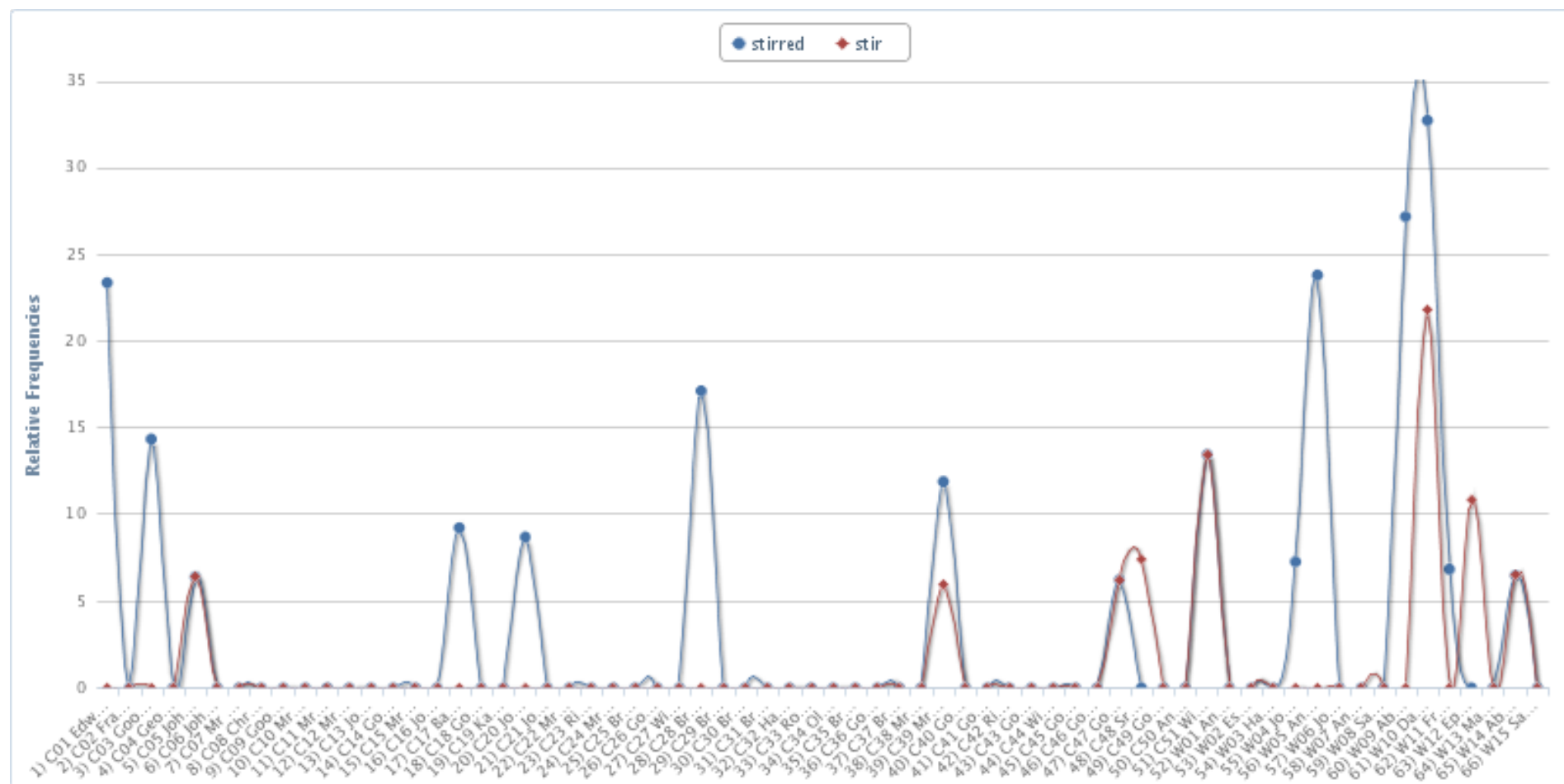


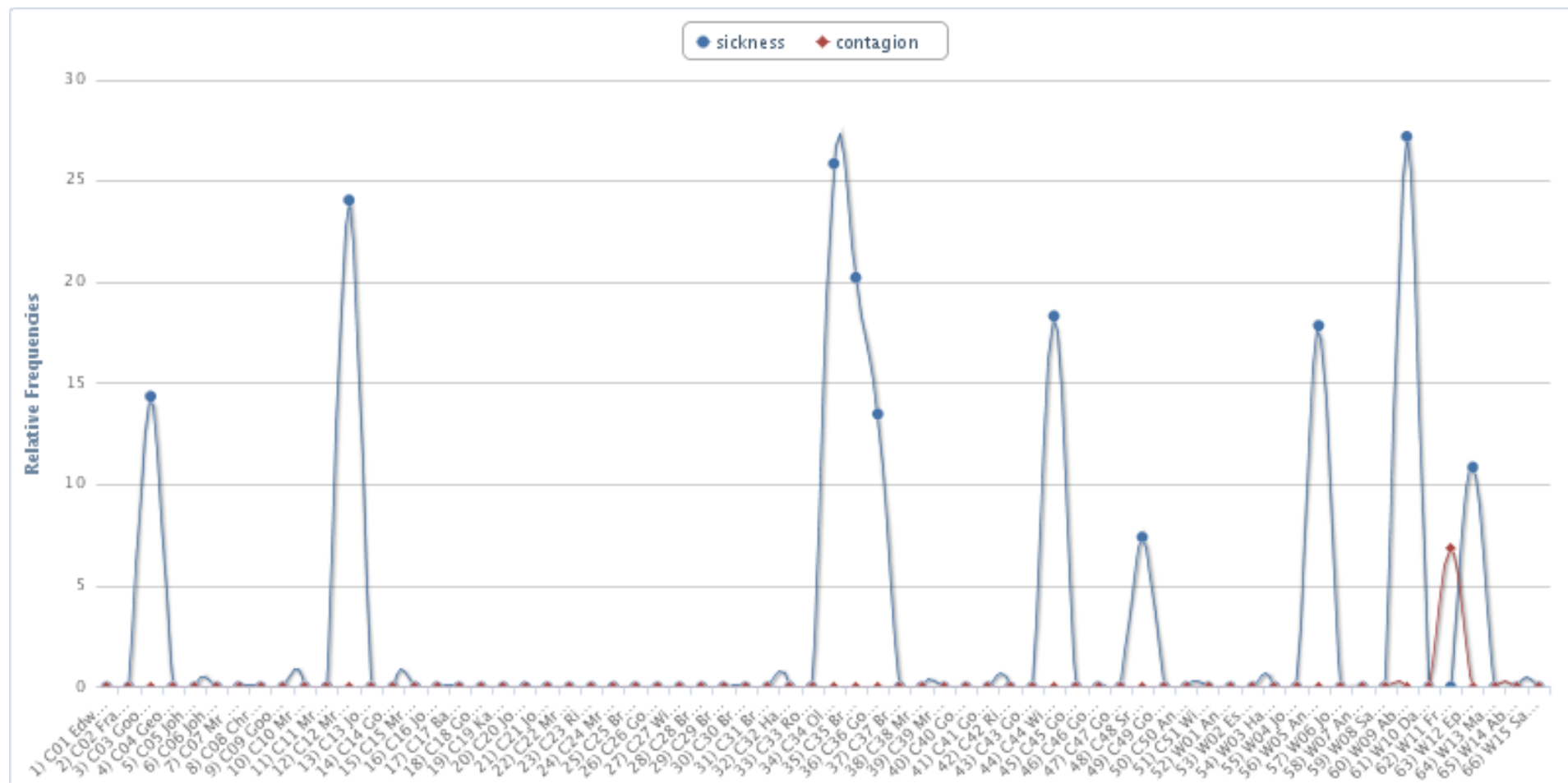












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1* 2 3 4 5 6 7 8 9 10 11 12

[Enter search words or verse here]

BGM Tools Copy

☒ Gen 3:7 ... ἦσαν καὶ ἔρραψαν φι
☒ Gen 7:11 ... ταύτη ἔρραγησαν πά
☒ Gen 21:15 ... ἀσκοῦ καὶ ἔρριπεν τὸ
☒ Gen 37:20 ... αὐτὸν καὶ ῥίψωμεν α
☒ Gen 37:24 ... αὐτὸν ἔρριψαν εἰς τὸ
☒ Gen 42:1 ... ἵνα τί ῥαθυμεῖτε
☒ Gen 48:16 ὁ ἄγγελος ὁ ῥυόμενός μ
☒ Exo 1:22 ... τὸν ποταμὸν ῥίψατε
☒ Exo 2:17 ... Μωυσῆς ἔρρύσατο αὐ
☒ Exo 2:19 ... Αἰγύπτιος ἔρρύσατο
☒ Exo 3:8 ... εἰς γῆν ῥέουσιν γάλα
☒ Exo 3:17 ... εἰς γῆν ῥέουσιν γάλα
☒ Exo 4:3 *2 ... ῥίψον αὐτὴν ἐπὶ τὴν
☒ Exo 5:23 ... καὶ οὐκ ἔρρύσω τὸν
☒ Exo 6:6 ... καὶ ῥύσσομαι ὑμᾶς ἐκ
☒ Exo 7:9 ... ῥάβδον καὶ ῥίψον αὐ
☒ Exo 7:10 ... κύριος καὶ ἔρριπεν
☒ Exo 7:12 καὶ ἔρριψαν ἕκαστος τὴ
☒ Exo 12:27 ... ἡμῶν ἔρρύσατο καὶ κ
☒ Exo 13:5 ... σοι γῆν ῥέουσιν γάλ
☒ Exo 14:16 ... θάλασσαν καὶ ῥήξον
☒ Exo 14:30 καὶ ἔρρύσατο κύριος τὸ
☒ Exo 15:1 ... ἀναβάτην ἔρριπεν εἰ
☒ Exo 15:4 ... αὐτοῦ ἔρριπεν εἰς θά

Gen 3:9 The First Sin and Its Punishment

BGM Genesis 3 9

NAS **Genesis 3:9** Then the LORD God called to the man, and said to him, "Where are you?"

NKJ **Genesis 3:9** Then the LORD God called to Adam and said to him, "Where are you?"

BGM **Genesis 3:9** καί@cc καλέω@viaa3s
κύριος@nhamsc ὁ@dms θεός@nhamsc ὁ@dms
'Αδάμ@namsp καί@cc λέγω@viaa3s
αὐτός@trpms 'Αδάμ@nvmsp ποῦ@b
εἰμί@vira2s

BGT **Genesis 3:9** καὶ ἐκάλεσεν κύριος ὁ θεὸς
τὸν Ἀδὰμ καὶ εἶπεν αὐτῷ Ἀδὰμ ποῦ εἶ

אלהים יהוה יקרא ויגן Genesis 3:9
אלהים יאמר לו איפה

Analysis Resources Notes Editor X-Refs

Stats Words Context Version Info Browse

BGM: 490 matches in 467 of 38279 verses (1.22%).

vss in bk with hit Descending Options

Psa (66 of 2533) 66
Isa (42 of 1289)
Exo (23 of 1163)
Jer (18 of 1298)
2Ki (17 of 719)
Job (17 of 1069)
Eze (17 of 1267)
Dan (16 of 405)
3Ma (15 of 228)
Lev (13 of 859)
Pro (12 of 891)
Wis (12 of 435)
Jdg (11 of 617)
2Sa (10 of 695)
Dat (10 of 424)
Deu (9 of 959)
Mat (9 of 1068)
Jda (8 of 618)
1Ki (8 of 756)
1Ma (8 of 924)
2Ma (8 of 555)
Sir (8 of 1366)
Gen (7 of 1531)
Num (6 of 1287)
Jos (6 of 643)
Jdt (5 of 340)
Tob (5 of 248)
Pss (5 of 293)
Luk (5 of 1149)

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BGM Limits Strong's Browse Analysis Tr Notes Accents Vowels Qere Kethib English (United States)

The Vocabulary of Conversion: Text-Mining the East Windsor Conversion Relations

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