



MEMORANDUM

TO: Committee on Court Administration and Case Management

FROM: Roy Germano, Research Associate
Jason Cantone, Senior Research Associate
Jana Laks, Research Analyst
Kristin Garri, Senior Research Associate/Data Operations Manager

DATE: May 9, 2025

RE: Exploratory Analysis of Unredacted Birthdates in Federal Court PACER Documents

Appellate Rule 25(a)(5), Bankruptcy Rule 9037, Civil Rule 5.2, and Criminal Rule 49.1 require parties and nonparties to redact personally identifiable information in documents they file with the federal courts. Specifically, filers must redact social security numbers (SSNs), individual taxpayer identification numbers, birthdates, minors' names, and financial account numbers. Criminal Rule 49.1 and Appellate Rule 25(a)(5) further require filers to redact individuals' home addresses.

In April 2024, at the request of the Committee on Court Administration and Case Management (CACM), the Federal Judicial Center (Center) completed the study, *Unredacted Social Security Numbers in Federal Court PACER Documents*, which reports the number of unredacted SSNs and taxpayer identification numbers found in a random sample of 4.7 million federal court PACER documents.¹

CACM also asked the Center to conduct an exploratory study on the presence of unredacted birthdates in federal court PACER documents. Under the privacy rules, all but the year of the individual's birth must be redacted in a filing. This memo reports the number of fully unredacted birthdates (i.e., month, day, and year) found in the same random sample of 4.7 million federal court PACER documents that we used in the study of unredacted SSNs.²

To begin identifying unredacted birthdates, the research team developed an algorithm to search the documents for common date formats.³ This initial search yielded 56 million dates. Next, we developed algorithms that assessed the context surrounding each date to make predictions about

¹ To construct the sample, we randomly selected 37 dates in calendar year 2022 and downloaded all documents filed in the federal district, bankruptcy, and appeals courts on those days.

² Our method was similar to that used with SSNs; however, we examined a subset of the unredacted date of births instead of all of them to determine compliance with the rules.

³ E.g., January 1, 1970; Jan. 1, 1970; Jan 1, 1970; 01/01/1970; 01/01/70; 1/1/1970; 1/1/70; 01-01-1970; 01-01-70; 1-1-1970; 1-1-70.

which ones might be birthdates.⁴ We then manually reviewed each of the dates flagged by the prediction algorithm to determine which were birthdates.⁵

Finally, we manually inspected random samples of confirmed unredacted birthdates to estimate the proportion that were likely noncompliant with the privacy rules.⁶ In the process, we identified birthdates that appeared to be exempt from the redaction requirements under the privacy rules or which appeared to belong to pro se parties or other individuals who filed their own birthdates, suggesting a waiver of the privacy protections. If a birthdate was believed to be exempt, we noted the reason.

We consider this analysis exploratory because with experience the search algorithm and manual review process could be refined to increase the number of unredacted dates of birth and the number of documents containing unredacted dates of birth reported here.

Table 1 summarizes key findings. In total, 111,496 unredacted birthdates were identified in 20,731 of the 4.7 million documents examined (0.44%). The proportion of documents with unredacted birthdates was highest in district court filings (0.86%) and court of appeals filings (0.74%) and lowest in bankruptcy court filings (0.09%). Among the 111,496 unredacted birthdates found, an estimated 54% were noncompliant with the privacy rules. An estimated 29% were exempt from the redaction requirement and an estimated 17% belonged to pro se parties and individuals (e.g., attorneys) who filed their own dates of birth, waiving the privacy protections.

⁴ Dates were flagged as possible birthdates if they appeared within two lines of terms such as “Date of birth,” “birthdate,” “DOB,” “birthday,” “born,” and “birth.”

⁵ During this manual review, if we found unredacted dates of birth our algorithm did not flag, we added them to the set of flagged unredacted dates of birth.

⁶ We drew six random samples of 1,067 birthdates from each of the following: (1) civil documents, (2) criminal documents, (3) documents from the miscellaneous docket, (4) appeals documents, (5) proof of claims filings, and (6) bankruptcy documents other than proof of claims filings. Estimates for each sample have a margin of error not exceeding 3%.

Table 1. Unredacted Dates of Birth (DOB) in PACER Documents on 37 Randomly Selected Days in Calendar Year 2022

	District Courts *	Bankruptcy Courts **	Appeals Courts	Total All Courts
Number of documents analyzed	2,017,908	2,518,202	138,132	4,674,242
<i>Documents containing unredacted DOBs</i>	17,320	2,392	1,019	20,731
<i>% Documents containing unredacted DOBs</i>	0.86%	0.09%	0.74%	0.44%
Number of unredacted DOBs identified	99,247	5,874	6,375	111,496
<i>% DOBs noncompliant with privacy rules</i>	53%	59%	60%	54%
<i>% DOBs exempt from privacy rules</i>	30%	36%	12%	29%
<i>% DOBs with privacy protections waived</i>	17%	6%	28%	17%

* Includes filings from cases on the civil, criminal, and miscellaneous dockets

** Includes proof of claim filings

Percent noncompliant, exempt, and waived estimated from random samples (margin of error ±3%)

Most of the unredacted birthdates identified came from documents filed in the district courts. Table 2 shows that the majority (83%) of unredacted birthdates—82,113 out of 99,247—appeared in civil filings. However, similar proportions of documents from civil, criminal, and miscellaneous cases contained unredacted birthdates. Specifically, unredacted birthdates appeared in 0.92% of civil documents, 0.72% of criminal documents, and 0.71% of documents from cases on the miscellaneous docket.

Table 2. Unredacted Dates of Birth (DOB) in District Court Filings

	Civil Docket	Criminal Docket	Misc. Docket	District Total
Number of documents analyzed	1,429,939	484,203	103,766	2,017,908
<i>Documents containing unredacted DOBs</i>	13,105	3,478	737	17,320
<i>% Documents containing unredacted DOBs</i>	0.92%	0.72%	0.71%	0.86%
Number of unredacted DOBs identified	82,113	12,996	4,138	99,247
<i>% DOBs noncompliant with privacy rules</i>	53%	45%	66%	53%
<i>% DOBs exempt from privacy rules</i>	33%	15%	29%	30%
<i>% DOBs with privacy protections waived</i>	14%	40%	4%	17%

Percent noncompliant, exempt, and waived estimated from random samples (margin of error ±3%)

An estimated 53% of the birthdates identified in civil filings, 45% of the birthdates identified in criminal filings, and 66% of the birthdates identified in miscellaneous filings were noncompliant with the privacy rules. Of the birthdates exempt from redaction in civil cases, nine of ten were exempt because they appeared in state court records. In criminal cases, nine of ten birthdates

were exempt because they appeared in charging documents, warrants, and criminal investigations. Moreover, an estimated 40% of the unredacted birthdates in criminal filings did not violate the privacy rules because they belonged to pro se parties and individuals who filed their own birthdates. Many of these birthdates appeared in compassionate release motions filed by prisoners.

Unredacted birthdates were less common in bankruptcy documents. Table 3 distinguishes between the unredacted birthdates identified in proof of claim filings and those identified in all other bankruptcy filings. Unredacted birthdates appeared in 0.28% of documents associated with proof of claim filings compared to 0.06% of documents associated with other bankruptcy filings. An estimated 82% of the birthdates found in proof of claim filings and 43% of the birthdates found in other bankruptcy filings were noncompliant with the privacy rules. Nearly all (99%) birthdates from bankruptcy filings that were exempt from the redaction requirement appeared in the records of state court proceedings.

Table 3. Unredacted Dates of Birth (DOBs) in Bankruptcy Court Filings

	Proof of Claim Filings	All Other Bankruptcy Filings	Bankruptcy Total
Number of documents analyzed	428,142	2,090,060	2,518,202
<i>Documents containing unredacted DOBs</i>	1,189	1,203	2,392
<i>% Documents containing unredacted DOBs</i>	0.28%	0.06%	0.09%
Number of unredacted DOBs identified	2,364	3,510	5,874
<i>% DOBs noncompliant with privacy rules</i>	82%	43%	59%
<i>% DOBs exempt from privacy rules</i>	17%	48%	36%
<i>% DOBs with privacy protections waived</i>	2%	9%	6%

Percent noncompliant, exempt, and waived estimated from random samples (margin of error ±3%)

Finally, recall from Table 1 that unredacted birthdates were identified in 0.74% of documents filed in the appeals courts. An estimated 60% of the birthdates identified in appeals filings appeared to be noncompliant with the privacy rules, while an estimated 12% were likely exempt from redaction under the rules and 28% belonged to parties who waived the privacy protections. Of those that were exempt, about two-thirds appeared in the records of state court proceedings.

Table 4. Percentage of Documents with Unredacted Dates of Birth (DOBs) and Social Security Numbers (SSNs)

	District Courts *	Bankruptcy Courts **	Appeals Courts	Total All Courts
<i>% Documents containing unredacted DOBs</i>	0.86%	0.09%	0.74%	0.44%
<i>% Documents containing unredacted SSNs</i>	0.12%	0.07%	0.17%	0.10%
<i>% Documents containing SSNs and DOBs</i>	0.07%	0.02%	0.11%	0.04%

* Includes filings from cases on the civil, criminal, and miscellaneous dockets

** Includes proof of claim filings

Table 4 compares key findings from this study to the Center’s April 2024 study of unredacted SSNs. Our research suggests that unredacted birthdates were more common than unredacted SSNs in federal court documents. Across the 4.7 million documents analyzed, unredacted birthdates were found in more than four times as many documents. The differences were largest in district court filings and court of appeals filings. More than seven times as many district court documents contained unredacted birthdates as contained unredacted SSNs, and more than four times as many appeals court documents contained unredacted birthdates as contained unredacted SSNs. Unredacted birthdates and unredacted SSNs appeared in similar numbers of bankruptcy court documents.

Our research also suggests that documents with unredacted SSNs often also contained unredacted birthdates. As shown in Table 4, unredacted birthdates were found in nearly half of the documents that contain unredacted SSNs. The overlap was largest in the district and appeals courts, where between one-half and two-thirds of documents that were found to contain unredacted SSNs also contained unredacted birthdates. In contrast, less than a third of the bankruptcy documents that were found to contain unredacted SSNs also contained unredacted birthdates.