WORKING PAPER

INTRODUCTION TO THE NONDELEGATION PROJECT (BETA), VERSION 1.0.

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Abstract

We describe the development of an inventory of congressional delegations—that is, a database that connects the specific statutory authorities granted by Congress with the rules that agencies produce on the basis of that delegation. This database allows users to identify each rule’s authorizing statute, as well as sort and prioritize rules by promulgating agency, type of delegation, and number of regulatory restrictions contained. Ultimately, users can learn about the relationship between regulations and their authorizing statutes. The database uses artificial intelligence (AI) to classify each delegating statute into one of two categories: general (containing delegating language that is broad or vague) and specific (containing language that limits scope in some way).

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Which statutory authorities are most crucial for regulations? Are there any delegations that seem to lead to relatively more regulations or relatively fewer? And is there anything researchers can ascertain about the nature of those delegations?

To answer these questions, we develop a nearly comprehensive inventory of statutory delegations and the federal regulations that cite them. Doing so permits an assessment of the distribution of citation frequency, with which questions such as "which statutes are cited the most often by regulations," "which are cited the least," and "what are the median and mean number of citations," can be answered.

We add to this inventory of delegations by including data about regulations from the RegData project. This adds another dimension to the database about the consequences (positive or negative) of specific regulations. Also, mapping regulations to authorizing statutes gives researchers another way of measuring the consequences of specific statutes besides the number of times they are cited in regulations.

To categorize each delegation, we developed a rigorous methodological approach to comparing multiple large language models (LLMs), such as Gemini, GPT-3.5-turbo, GPT-4o, Claude, and Grok, for classifying statutes according to a delegation framework based on existing legal scholarship. My goal was to automate and streamline the categorization of statutes into two delegation categories: specific authority and general authority. After detailed comparative evaluation, Google's Gemini 2.0-flash emerged as the most effective and cost-efficient model, demonstrating the critical importance of transparent methodology and rigorous testing in artificial intelligence (AI)-supported legal analysis.

The database extracts statutory authorities listed in the electronic *Code of Federal Regulations* (CFR) for each CFR part and lists them individually in a database. The plurality of

statutory authorities listed in the CFR are *US Code* sections, so that is the focus of this version of the Nondelegation Project.

One of the main goals of the Nondelegation Project is identifying which statutes are vague and which ones are specific. Another goal is rating the similarity of content of statutes and regulations: Does the statute explicitly authorize the regulation? Does it implicitly authorize it? Or are the statute and regulation only indirectly connected or even unrelated in terms of content?

We rely upon LLMs to help answer these questions. The remainder of this paper explains how we used LLMs in this project, how interested parties can use the database, and the project's value to concepts of nondelegation generally.

Evaluating Large Language Models for Statute-Regulation Categorization:

A Comparative Analysis

Recent advancements in generative AI have opened promising avenues for automating legal text classification. However, ensuring transparency, accuracy, and reliability remains paramount, especially when categorizing legal texts such as statutes and regulations. In this paper, we transparently document the process used to select an optimal LLM for classifying statutes according to Kristin Hickman's authoritative delegation framework.[1] By evaluating various models, we provide methodological clarity and comparative analysis valuable for practitioners and scholars in the fields of AI and law.

[1] Kristin E. Hickman and Amy J. Wildermuth, "Harmonizing Delegation and Deference After *Loper Bright*," *New York University Law Review*, accepted 2025, forthcoming.

Methodology

Data Preparation

We derived an evaluation dataset of 18 statutes from Hickman's recent scholarship on statutory delegation.[2] We classified each statute manually into three primary categories:

- Specific Authority: Explicit statutory directives for precise regulatory tasks.
- General Authority: Broad rulemaking grants without detailed specificity.
- Hybrid Delegation: Statutes combining general authority language with specific regulatory tasks.

We subsequently reclassified the hybrid delegations as general authority, because they contain at least some general authority language. We did so for the sake of simplifying the evaluation and use of LLMs.

We programmatically retrieved statutory texts from Cornell University's Legal Information Institute (LII) using robust scraping and caching techniques implemented in Python (see Box 1):[3]

[2] Hickman and Wildermuth, "Harmonizing Delegation and Deference After *Loper Bright*."
[3] Legal Information Institute (website), Cornell Law School, accessed July 17, 2025, https://www.law.cornell.edu/.

Box 1. Scraping and Caching Techniques

```python
def fetch_text(url, unique_id, retries=3):
	cache_path = f"cache/{unique_id}.txt"
	if os.path.exists(cache_path):
		with open(cache_path, 'r') as file:
			return file.read()

	for attempt in range(retries):
		try:
			response = requests.get(url, headers={"User-Agent":
			"Mozilla/5.0"})
			response.raise_for_status()
			soup = BeautifulSoup(response.text, 'html.parser')
			main_content = soup.find('div', {'id': 'content'})
			text = '\n'.join(p.get_text(strip=True) for p in
			main_content.find_all('p'))
			with open(cache_path, 'w') as file:
				file.write(text)
			return text
		except Exception as e:
			time.sleep(2 ** attempt)
	return "Fetch failed"
```

Model Evaluation

We constructed two distinct prompts—"short" and "long"—to test the effectiveness of different levels of instructional detail (see Box 2):

Box 2. Short and Long Prompts for Effectiveness Testing

````
*Short Prompt:
```plaintext
Classify the statute-regulation relationship:
(a) directly mandated
(b) authorized but not mandated
(c) related but neither mandated nor explicitly authorized
(d) unrelated
Categorize by Hickman's delegation:
[Specific Authority or General Authority]
Confidence (1-10):
```
*Long Prompt:
```plaintext
You are an expert in administrative law. Classify:
Task 1: Statute-regulation relationship:
(a) directly mandated
(b) authorized but not mandated
(c) related but neither mandated nor explicitly authorized
(d) unrelated
````
````

```
Task 2: Hickman’s delegation framework:

- Specific Authority: Statute explicitly instructs regulatory action.

- General Authority: Broad statutory delegation.

Provide confidence (1-10).

Statute:

{statute_text}

Regulation:

{regulation_text}

```

Model Comparison Framework

We compared several prominent LLMs:

- OpenAI: GPT-3.5-turbo, GPT-4o[4]
- Google: Gemini 1.5-pro, Gemini 2.0-flash[5]
- Anthropic: Claude-3-opus[6]
- xAI: Grok-1, Grok-2-latest[7]

We assessed models on the basis of

- accuracy (i.e., correct classification against the manually annotated ground truth) and
- efficiency and cost (i.e., API costs and response times).

We implemented the automated evaluation pipeline as follows (see Box 3):

[4] “OpenAI API Developer Platform,” OpenAI, accessed August 8, 2025, https://platform.openai.com/docs/.
[5] “Gemini Developer API,” Google, last updated August 6, 2025, https://ai.google.dev/gemini-api/docs/.
[6] Anthropic (website), accessed August 8, 2025, https://www.anthropic.com/.
[7] xAI (website), accessed August 8, 2025, https://x.ai/.

Box 3. Evaluation Pipeline

```python
import concurrent.futures
def evaluate_models(statute, regulation):
      results = {}
      prompt = LONG_PROMPT.format(statute_text=statute,
      regulation_text=regulation)
      for model in ["gpt-4o", "gpt-3.5-turbo", "gemini-2.0-flash",
      "claude-3-opus", "grok-2-latest"]:
            results[model] = query_model_api(prompt, model)
      return results
with concurrent.futures.ThreadPoolExecutor(max_workers=5) as executor:
      evaluation_results = list(executor.map(evaluate_models, statutes,
      regulations))
```

Results

A comprehensive comparative analysis yielded the following accuracy and cost-effectiveness assessment (see Table 1):

Table 1. Accuracy and Cost-Effectiveness Assessment

Model	**Accuracy**	**Cost per 1,000 Calls**	**Notes**
GPT-4o	94%	$5.00	High accuracy, high cost
GPT-3.5-turbo	85%	$0.50	Low accuracy, low cost

Gemini 2.0-flash	94%	$0.75	High accuracy, low cost
Claude-3-opus	91%	$1.00	High accuracy, moderate cost
Grok-2-latest	88%	$2.00	Moderate accuracy, moderate cost

We found Gemini 2.0-flash to offer the best balance, with high accuracy and low cost. Thus, we selected it for further application to larger-scale datasets.

Quick Start Guide

The full database underlying the Nondelegation Project website is available upon request. (Note that many regulations from the IRS are not included, but all other federal agencies' regulations are.[8]) We suggest that users refer to the data dictionary later in this paper when using the database. The main findings of the project, including the most cited general and specific statutes, the percentage of general delegations throughout the CFR, and the agencies with the most general delegations and restrictions, can be found using the database or in the Pacific Legal Foundation policy explainer *Identifying Agency Overreach: The Nondelegation Project*.[9] Users can learn more about the capabilities of the website in the next section.

Website Capabilities

The Nondelegation Project website has several functions. First, users can filter the data by "Agency," which will show only those parts of the CFR promulgated by the selected agency. Second, users can filter by "Delegation Category," with options for "General Authority," "No Delegation" (see explanation in the Data Dictionary), and "Specific Authority." Third, users can search for specific terms. For example, searching "Clean Air Act" or "Dodd-Frank Act" returns

[8] Nondelegation Project (website), Pacific Legal Foundation, accessed August 19, 2025, nondelegationproject.org.
[9] Patrick A. McLaughlin and Mitchell Scacchi, *Identifying Agency Overreach: The Nondelegation Project* (Sacramento, CA: Pacific Legal Foundation, 2025).

parts of the CFR with corresponding AI-generated explanations for the delegation category and relationship (see later) that cite the Clean Air Act or Dodd-Frank Act in some way. Not using any filters allows users to look through the entire CFR. Such a search will return every appropriate regulation and authorizing statute (with links to both), the promulgating agency, the number of regulatory restrictions contained in that part of the CFR, the delegation category with an explanation, and a classification and explanation of the relationship between the regulation and the authorizing statute (i.e., whether the actions delegated are mandated, authorized, related, or unrelated).

After the initial search, users will have the option to further refine their results. Users can sort the listed regulations by the number of restrictions they contain, publication date, or title in ascending or descending order. Regulatory restrictions are instances of the terms "shall," "must," "may not," "required," and "prohibited." Users can also choose to include CFR titles 1, 2, and 3 in their search results, as well as *US Code* Title 5. CFR Title 1 discusses primarily how regulations should be published and procedures related to the crafting of regulations, Title 2 discusses procedures for grants and federal financial assistance, and Title 3 discusses the setup and standards of conduct of the Executive Office of the President. As such, they do not contain regulations in the traditional sense, which is why the search tool excludes them initially. *US Code* Title 5 is not automatically included because it does not contain agency- or topic-specific delegations but instead contains organizational, administrative, and operational provisions directing the federal government. It also contains federal employee and civil service laws, responsibilities, and functions, as well as federal holidays.[10] Additional information, including

[10] U.S.C. §§ 101–13146 (2025).

the number of statutory citations, authorities listed in a delegation, and the last time the rules or statutes were updated or amended, can be found using the full database.

Value for Nondelegation Priorities

Despite Congress's constitutional authority to make laws, Congress has delegated significant legislative power to federal agencies by authorizing agencies to take certain actions. As the Nondelegation Project demonstrates, these delegations can be general (i.e., broad grants of rulemaking authority without specificity) or specific (i.e., explicit statutory directives to take precise regulatory action). Agencies exercise this authority through the promulgation of rules and regulations with the force of law, which often resembles lawmaking.

The nondelegation doctrine is the principle that Congress cannot give its legislative power to another entity.[11] With broader congressional delegations and a growing number of regulations, tracking this activity across the federal administrative state becomes increasingly difficult, if not impossible. As of late 2023, the CFR contained 1,098,730 individual regulatory restrictions across 245 volumes and 190,260 pages.[12] The number of CFR pages has grown by more than 86 percent since 1980.[13] The Nondelegation Project brings the administrative state and nearly all congressional authorizations to one user-friendly website.

Such a project has special value at this moment. The US Supreme Court has not struck down a statute on nondelegation doctrine grounds since it first did so in 1935.[14] However, recent

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[11] Legal Information Institute, "Nondelegation Doctrine," Cornell Law School, accessed July 17, 2025, https://www.law.cornell.edu/wex/nondelegation_doctrine.
[12] "RegData U.S. Regulation Tracker," QuantGov, accessed July 17, 2025, https://www.quantgov.org/federal-us-tracker; The George Washington University Regulatory Studies Center, "Total Pages Published in the Code of Federal Regulations," Reg Stats, accessed July 17, 2025, https://regulatorystudies.columbian.gwu.edu/reg-stats.
[13] The George Washington University Regulatory Studies Center, "Total Pages Published."
[14] Panama Refining Company v. Ryan, 293 US 388 (1935); A. L. A. Schechter Poultry Corporation v. United States, 295 US 495 (1935).

landmark Supreme Court decisions have brought into question the proper scope of regulatory authority. In *West Virginia v. Environmental Protection Agency*, the Court announced the major questions doctrine, declaring that agencies must point to clear congressional authorization before taking actions of economic or political significance.[15] In *Loper Bright Enterprises v. Raimondo*, the Court overturned the *Chevron* doctrine, under which courts would defer to agency interpretations of statutes when the law was ambiguous.[16]

Agency authority, Congress's ability to confer such authority, and the growth of the administrative state have all been increasingly called into question and scrutinized. Most notably, on February 19, 2025, President Donald Trump issued Executive Order 14219, directing the heads of executive departments and agencies to identify and repeal potentially unlawful regulations, as well as a subsequent memorandum to those heads prioritizing unlawful regulations under 10 Supreme Court decisions.[17] The Nondelegation Project allows users to easily identify problematic regulations, their questionable statutory authorizations under the nondelegation doctrine, or both—all in light of recent jurisprudence and interest in administrative authority.

Data Dictionary

Regulation Information (All Based on the 2023 CFR)

CFR Title. The title in which a regulation was published.

CFR Part. The part in which a regulation was published.

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[15] West Virginia v. Environmental Protection Agency, 597 U.S. 697 (2022).
[16] Loper Bright Enterprises v. Raimondo, 603 U.S. __ (2024).
[17] Exec. Order No. 14219, 90 Fed. Reg. 10583 (Feb. 25, 2025); President Donald J. Trump, "Directing the Repeal of Unlawful Regulations," White House, April 9, 2025, https://www.whitehouse.gov/presidential-actions/2025/04/directing-the-repeal-of-unlawful-regulations/.

Restrictions (from RegData). The number of regulatory restrictions contained in the CFR part. Regulatory restrictions are a proxy for the number of prohibitions and obligations contained in regulatory text and are measured by counting occurrences of words such as "shall," "must," and "may not."

Words (from Reg Data). The number of words contained in the CFR part.

Last Updated. The most recent year that a CFR part was updated in some way (as indicated by references to the *Federal Register* and the publication date).

Authorities. The number of individual authorities listed in a CFR part. For example, if a CFR part lists five different statutory authorities, then authorities is equal to 5. This includes only *US Code* sections, not other types of authorities (see the Known Issues section later in this paper).

cfr_url. Link to the regulatory text of a CFR part, hosted on the Cornell University Legal Information Institute's website.

Delegation Information

U.S. Code Title. The title in which the delegating authority was published.

U.S. Code Section. The section in which the delegating authority was published.

Delegation Category. The type of delegation contained in a *US Code* section, based on Kristin Hickman's research.[18] The category "No Delegation," which is not one in Hickman's research, indicates that the LLM could not fit the delegation into either the general or specific category. We verified each of these "No Delegation" instances, and while they are relatively rare,

[18] Hickman and Wildermuth, "Harmonizing Delegation and Deference After *Loper Bright*."

they are interesting examples of a regulation citing a statute that clearly has very little relation with the regulation and contains no delegatory language.

Citations. Total number of times a *US Code* section is cited by different CFR parts. For example, if 10 different CFR parts cite 33 U.S.C. § 1441, the value recorded for citations would be 10.

Last Amended. The last time a *US Code* section was amended, based on an LLM's reading of the text.

usc_url. Hyperlink to the text of the *US Code* section cited by the CFR part.

Known Issues

Part 1 of CFR Title 26 is excluded from the database because of its unique formatting. The database includes only delegations that were listed as *US Code* sections and does not yet include citations to public laws, statutes at large, or citations to non-congressional authorities (executive orders and other CFR parts). Finally, the database does not handle *US Code* sections that are listed with the "et seq" legal term and sometimes has trouble deciphering citations of large ranges of statutes (e.g., 18 CFR Part 11 cites 16 U.S.C. §§ 792–828c and 42 U.S.C. §§ 7101–7352. We hope a future version will improve on all these issues.