
ocd-api-documentation Documentation

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Regina Compton

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CHAPTER 1

Overview

The Open Civic Data (OCD) API makes governments more transparent and accountable by providing a comprehensive, filterable library of government data. With this tool, everyday citizens can better understand local governments, track the legislative process, and hold officials accountable.

Users can conveniently explore information on legislation, politicians, governing bodies, and divisions. The API responds to standard URL query strings, and it returns data in an easily interpretable and scrapable JSON format.

[DataMade](#) uses the API to power many of its open government tools, including [Chicago, NYC](#), and [Los Angeles Metro Councilmatics](#), but the database contains information on thousands of districts nationwide.

CHAPTER 2

Requirements

Anyone with an internet browser can readily access the Open Civic Data API. It requires no special programs or installations. The API, however, presents results in JSON. Thus, a JSON reader of some kind can help organize the page into a user-friendly, human-readable format. (JSONview, for instance, has an exceptional extension for [Chrome](#) or [Firefox](#) users.)

[Learn more](#)

The following sections give a high-level overview of the OCD endpoints (i.e., the categories of civic data on the API) and walk through the process of querying the OCD library for specific results.

3.1 Endpoints

The API contains eight different types of civic data. A unique endpoint represents each category:

- bills
- boundaries
- divisions
- events
- jurisdictions
- organizations
- people
- votes

Independently filterable and searchable, the endpoints organize individual entries, each receiving a unique id, which points to detailed information about a specified instance of civic data.

3.1.1 Elements of an Endpoint

An endpoint has two parts: (1) the **listing pages**, which contain general information on entities, and (2) the **detail pages**, which contain all available data on a given entity. Some entries also contain the names and ids of related entities stored in different endpoints.

1. **Listing Page.** To access the listing page for an endpoint, enter a URL with the following pattern:

```
oed.datamade.us/{end point name}/
```

The endpoint name should be one of the categories listed above. Example:

```
oed.datamade.us/events
```

- Detail Page.** The listing page displays a collection of entries, and each entry receives a unique id that makes possible the entity detail page. To access a detail page, enter a URL with the following pattern:

```
oed.datamade.us/{id}/
```

The unique identifier has two parts – a label indicative of the category, and a slug of randomized numbers and letters. Example:

```
oed.datamade.us/oed-event/fe2dde3c-b526-4abc-b5f0-7d62c6cd9b04/
```

3.1.2 Endpoint Details

Bills

The [bills endpoint](#) contains information on individual pieces of legislation, including the classification, identifier, title, and subject of the bill. Each entry also provides the name and id of the organization that proposed the bill, the name and id of the bill jurisdiction, and the unique id of the bill itself.

Boundaries

The [boundaries endpoint](#) contains geographic information on many of the divisions tracked by the API, such as the Illinois congressional districts, wards, and precincts. Unlike the other endpoints, boundary entities do not receive an id, but rather a URL. Each entry on the boundaries listing page contains the URL for the boundary, the URL of the boundary set (the parent set of the specific boundary), and the name and id of the division the boundary describes. The boundary-specific detail page contains URLs for the simple shape of the boundary, centroid, boundary set and shape, as well as coordinates on its bound box.

Divisions

The [divisions endpoint](#) contains data on the various geographic divisions of federal, state, county, and local governments. These include but are not limited to court precincts, commission districts, school districts, congressional districts, counties, townships, cities, towns, villages, boroughs, etc. The division detail pages also contain the ids of all “children” divisions: for instance, the children of the [United States](#) are the individual states.

Events

The [events endpoint](#) contains information on meetings, hearings, and other gatherings of various governing bodies. The detail pages for each event also contain names and ids for all people, jurisdictions, organizations, and bills affiliated with the event.

Jurisdictions

The `jurisdictions` endpoint includes details on each individual governing body contained within the API. This includes: New York City, Chicago City, Miami-Dade County, Ferguson City Council, and Los Angeles County governments.

Organizations

The `organizations` endpoint includes entries for the various executive offices, legislative bodies, committees, and parties tracked by the API (e.g., Chicago City Council, Republican Party, etc). The listing page includes names and ids for all relevant jurisdictions and parent organizations. The detail pages for each organization also contain names, ids, term dates, and organizational positions for each member, as well as names and ids for all parent organizations, children organizations, and overarching jurisdictions and divisions.

People

The `people` endpoint contains detailed information on the members of each jurisdiction tracked by the API. The membership array on the people listing and detail pages includes relevant organization and jurisdiction names and ids.

Votes

The `votes` endpoint contains information about every motion made on every piece of legislation within each jurisdiction tracked by the OCD API. The listing and detail pages within the votes endpoint also contain the name and id of the bill being voted on, and the organization conducting the vote. The detail page for each vote also lists the name and id of every voter and how they voted.

3.1.3 Further Reading

More detailed information on the exact contents of listing and detail pages for endpoints can be found [here](#).

3.2 Querying Endpoints

The OCD endpoints, individually filterable and searchable, can return precise results about government data. The API responds to standard URL queries: users can search the API using basic query strings and also advanced query patterns, including certain [Django URL Filters](#).

3.2.1 Query basics

A question mark (?) always demarcates the beginning of a URL query string:

```
# Basic pattern
http://ocd.datamade.us/events/?{query string}

# Example query - all events in the Los Angeles timezone
http://ocd.datamade.us/events/?timezone=America/Los_Angeles
```

Queries can contain multiple parameters. An ampersand (&) separates each parameter:

```
# Basic pattern
http://ocd.datamade.us/events/?{param1}&{param2}&{param3}

# Example query - all canceled events in the Los Angeles timezone
http://ocd.datamade.us/events/?timezone=America/Los_Angeles&status=cancelled
```

3.2.2 A few useful calls

Filtering on data points

Each entry displays a collection of fields and corresponding data, e.g., an event has a classification, description, start_time, etc. Any of these data points may form the basis of a URL query:

```
# Basic pattern
http://ocd.datamade.us/bills/{data point}={value}

# Example query - all bills labeled as claims
http://ocd.datamade.us/bills/?classification=claim
```

Some fields contain arrays of data. Use a double underscore to separate the field names:

```
# Basic pattern
http://ocd.datamade.us/bills/{name of array}__{desired subset}

# Example query - all the bills processed by the Chicago City Council
http://ocd.datamade.us/bills/?from_organization__name=Chicago%20City
↳%20Council
```

And again, the API also accepts multiple parameters, separated by an ampersand (&):

```
# Filtering on more than one data point
http://ocd.datamade.us/bills/?from_organization__name=Chicago%20City
↳%20Council&classification=claim
```

Note: type the spaces if a value has multiple words, e.g, Grants of Privilege. The API will automatically replace spaces with the correct encoding (“%20”).

Page

Most endpoints do not contain all entities on a single listing page. To navigate through all entries, run the “page” query:

```
# Returns the second listing page within the bills endpoint
http://ocd.datamade.us/bills/?page=2
```

Note: The boundaries endpoint is not paginated in this way. For now, this endpoint employs an offset + limit format. “Offset” refers to the index of the entity that is first displayed, and “limit” sets the number of entities viewable on each page.

Sort

The “sort” call orders entities in an endpoint by a specific parameter, in either ascending or descending order:

```
# Returns bills sorted in alphanumeric order by title
http://ocd.datamade.us/bills/?sort=title
```

```
# Returns bills in reverse alphanumeric order by title
http://ocd.datamade.us/bills/?sort=-title
```

Finding all data points

The listing page does not show all accessible data points: that is, some data points only appear on the detail page of an entry. Fortunately, API queries can simultaneously sift through data on both the listing and detail pages.

```
# Returns bills with a latest action date of 2013-01-17
http://ocd.datamade.us/bills/?actions__date=2013-01-17

# Returns bills in ascending order (oldest to newest) of their latest action_
↪date
http://ocd.datamade.us/bills/?sort=actions__date

# Returns the second page of bills from New York City Council
# In descending order (newest to oldest) of the latest action date
http://ocd.datamade.us/bills/?sort=-actions__date&from_organization__name=New
↪%20York%20City%20Council&page=2
```

3.2.3 Django queries

The OCD API also responds to [Django URL filters](#).

contains and icontains

The “contains” parameter is particularly helpful. As the name suggests, the query returns all entries containing a specified string in a given field. The “icontains” parameter performs the same function, but for case insensitive searches.

```
# Returns all bills with titles that include “Zoning Reclassification”
http://ocd.datamade.us/bills/?title__contains=Zoning%20Reclassification
```

Get even more specific results: tack the two strings together.

```
# Return all Chicago City Council bills with titles that include “Zoning_
↪Reclassification”
# In descending order (newest to oldest) of the latest action date
http://ocd.datamade.us/bills/?from_organization__name=Chicago%20City
↪%20Council&title__contains=Zoning%20Reclassification&sort=-actions__date
```

Comparison operators

The API supports a number of comparison operators: greater than (gt), less than (lt), greater than or equal to (gte), and less than or equal to (lte).

```
# Returns all bills with at least one action taken after January 1, 2013
http://ocd.datamade.us/bills/?actions__date__gt=2013

# Returns all bills with no actions taken after January 1, 2013
http://ocd.datamade.us/bills/?actions__date__lt=2013

# Returns bills with at least one action taken on or after January 1, 2013
http://ocd.datamade.us/bills/?actions__date__gte=2013

# Returns bills with at least one action taken on or before January 1, 2013
http://ocd.datamade.us/bills/?actions__date__lte=2013
```

exact

The “exact” filter returns entities containing an exact value for a specified field. The “iexact” filter performs the same function, but for case insensitive searches.

```
# Return all bills proposed under the jurisdiction of Chicago City Government
http://ocd.datamade.us/bills/?from_organization__jurisdiction__name__
↳iexact=chicago%20City%20government
```

startswith and endswith

The “startswith” filter returns entities containing a value for a field that begins with a specified string. The “endswith” call does the same function for entity values that end with a specified string. The “istartswith” and “iendswith” calls perform the same function as their parent parameters, for for case insensitive searches.

```
# Returns bills with titles that begin with the exact phrase “Rahm Emanuel”
http://ocd.datamade.us/bills/?title__startswith=Rahm%20Emanuel

# Returns bills with titles that end with the phrase “Rahm Emanuel”
↳(insensitive of case)
http://ocd.datamade.us/bills/?title__iendswith=rahm%20Emanuel
```