



Web API: List Occupations by Keyword

The 'List Occupations by Keyword' API enables developers to query and retrieve a list of occupations (codes, titles, and descriptions) from a keyword string. A complementary API provides details about O*NET occupations.

About this data

The API provides search results for an occupation based on a keyword entered. The results consist of occupations in any of four different occupation taxonomies:

- (1) the Occupational Information Network (O*NET) taxonomy created by the Department of Labor for cross-agency use by federal, state and local government entities;
- (2) Standard Occupational Classification (SOC) from BLS;
- (3) slight variation on SOC used by BLS Occupational Employment and Wage Statistics (OEWS) program when they publish wage data;
- (4) slight variation on SOC used by BLS Employment Projections program when they publish employment projections.

Similar information is used in the CareerOneStop [Occupation Profile](#). You can also find information about the data [here](#).

Resource URL

<https://api.careeronestop.org/v1/occupation/{userId}/{keyword}/{dataLevelOnly}/{startRecord}/{limitRecord}>

Try this Web API

Example Code

C#

Java

```
using System;

using System.Net.Http;

using System.Net.Http.Headers;

using System.Threading.Tasks;

namespace CareerOneStopAPISample
{
    class Program
    {
```

Request Parameters

Refer to the following table for a list of the required and optional request parameters. All parameter names and values are case sensitive. Important: You must provide all required parameters. Submitting an empty request does not return all possible results; an empty request returns an error.

| Parameter Name | Value | Required? | Description |
|----------------|---------|-----------|--|
| API Token | String | Required | This value is the unique API Token provided during the CareerOneStop web services registration process |
| userId | String | Required | This value is the unique UserID provided during the CareerOneStop web services registration process |
| keyword | String | Required | Keyword or O*NET code. O*NET codes may be in format ##-####.## or #####. SOC, OES, and MAT codes may be in format ##### or ##-####. |
| dataLevelOnly | String | Required | If Y or Yes, and if searchBy is onet, then the response will include only data-level O*NET occupations associated with this occupation, if any; the response will exclude non-data-level occupations. FFI: https://www.onetcenter.org/taxonomy.html#latest |
| startRecord | Integer | Required | The number of records to skip before returning records. To start at the beginning, use 0. |
| limitRecord | Integer | Required | This value is the maximum number of results to be returned by web service. |
| dataSetType | | Optional | Describes the way the search should be implemented. 0 (default value) = search flexibly, by code if search term is a valid, complete occupation code, else by keyword. Code = search only by code. If search term is a title, then the search is performed on corresponding code. Keyword may be a partial code; the API returns occupations where there's a match, starting in first or third position. For example, if you search for '1011', results include 11-1011, 13-1011, and others. If dataSetType is code, and the keyword is not a valid occupation code or title, then the call generates an error. Title = search only by keyword; if search term is a code, then the search is performed on the corresponding title used as the search term. |
| searchBy | | Optional | Describes the taxonomy from which matches are selected and returned by this API call. onet (default value) = returns O*NET occupations soc = returns SOC occupations socoes = returns occupations used in wage data, from BLS Occupational Employment and Wage Statistics (OEWS) program socmat = returns occupations used in national employment matrix, from BLS Employment Projections program |

Response Structure

| JSON | XML |
|--|-----|
| <pre>{ "RecordCount": 18, "DidYouMean": "", "AutoCorrection": "", "Request": { "InputOccupation": "nurse", "InputOccupationCode": "", "InputOccupationTitle": "" } }</pre> | |

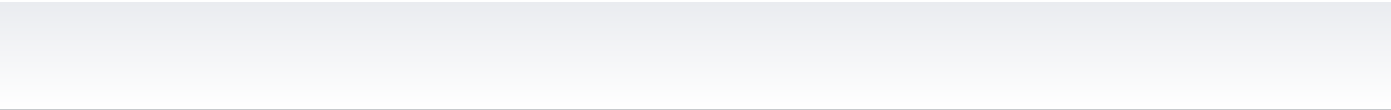
Response Parameters

| Name | Description | Type | Parent |
|-----------------------|--|-----------------|----------------------|
| RecordCount | Record Count | Number | |
| DidYouMean | Did You Mean | String | |
| AutoCorrection | Auto Corrections | String | |
| Request | Info about your API request | Object | |
| InputOccupation | The keyword by which you are searching | String | Request |
| InputOccupationCode | If keyword is an occupation, then this is the corresponding occupation code. Null otherwise. | String | Request |
| InputOccupationTitle | If keyword is an occupation, then this is the corresponding occupation title. Null otherwise. | String | Request |
| OccupationList | Matching Occupations. This object contains info about all matching occupations, in the taxonomy you requested. | List of objects | |
| OnetTitle | Title in the taxonomy you requested, which may or may not be O*NET | String | OccupationList |
| OnetCode | Code in the taxonomy you requested, which may or may not be O*NET | String | OccupationList |
| OccupationDescription | Occupation Description in the taxonomy you requested, which may or may not be O*NET | String | OccupationList |
| SocOccupationList | Matching SOC occupations, if you requested SOC | List of objects | |
| Title | Title of SOC occupation | String | Soc OccupationList |
| Code | Code of SOC occupation | String | Soc OccupationList |
| OccupationDescription | Description of SOC occupation | String | SocOccupationList |
| SocOesOccupationList | Matching OES occupations, if you requested OES | List of objects | |
| Title | Title of OES occupation | String | SocOesOccupationList |
| Code | Code of OES occupation | String | socOesOccupationList |
| OccupationDescription | Never populated in this API | String | SocOesOccupationList |
| SocMatOccupationList | Matching occupations from the National Employment Matrix (MAT), if you requested MAT | List of objects | |

| Name | Description | Type | Parent |
|------------------------|-----------------------------|--------|----------------------|
| Title | Title of MAT occupation | String | SocMatOccupationList |
| Code | Code of MAT occupation | String | SocMatOccupationList |
| Occupation Description | Never populated in this API | String | SocMatOccupationList |

Errors

| Error/Status Code | Description |
|-------------------|---|
| 200 | OK / Success. The request went through successfully and there is a response body. |
| 400 | Bad Request (Request was invalid or missing parameters) |
| 401 | Unauthorized. This error occurs specifically when authentication is required and has failed or has not yet been provided correctly. (ex: Invalid API Token) |
| 404 | This error will be shown in two scenarios 1) Not found - (An error occurred) and 2) Not found - (No data available) |
| 500 | Internal Server Error. This error will occur when there is something critically wrong in the API call. |



For information about jobs, training, career resources, or unemployment benefits call:

1-877-US2-JOBS (1-877-872-5627) or TTY 1-877-889-5627

For help using the CareerOneStop website:

info@careeronestop.org

CareerOneStop is sponsored by the U.S. Department of Labor, Employment and Training Administration

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