

# Getting Started with the PSEO and QWI Application Programming Interface (API)

## Local Employment Dynamics (LED) Partnership Workshop

May 13, 2026

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U.S. Census Bureau

# Census Programs in the API

## Demographic Programs

- American Community Survey
- Decennial Census
- Decennial Census Self Response Rates
- Health Insurance stats (from Current Population Survey, Survey of Income Program Participation, ACS, Small Area Health Insurance Estimates)
- International Database
- Population Estimates and Projections
- Poverty stats (from CPS, Small Area Income & Poverty Estimates)

## Economic (Business) Programs

- Annual Integrated Economic Survey (AIES)
- Annual Survey of Entrepreneurs and Annual Survey of Manufacturers
- Annual Business Survey and Survey of Business Owners
- Business Dynamics Statistics
- County/ZIP Business Patterns and Nonemployer Stats
- Commodity Flow Survey
- Economic Census and Economic Indicators
- International Trade
- **Longitudinal Employer-Household Dynamics (LEHD)**
  - Quarterly Workforce Indicators (QWI)
  - Post-Secondary Employment Outcomes (PSEO)

# LEHD Data in the API

⊖ Longitudinal Employer-Household Dynamics (LEHD)

## Post-Secondary Employment Outcomes (PSEO) Time Series (2001-2022)

January 10, 2025

PSEO data provide earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution.



## Quarterly Workforce Indicators (QWI) (Time Series: 1990 - present)

September 12, 2016

The QWI are a set of 32 economic indicators including employment, job creation/destruction, wages, hires, and other measures of employment flows.



# Developers Page

**Developers**

[REQUEST A KEY](#)

The Census Bureau has begun rolling out our datasets via APIs. Check out [our Discovery Tool](#). Sign up for our newsletter to get the latest updates and newest dataset addition. We also invite you to make requests for features / data via our [forum](#).

[Read More](#)

### Developers' Forum

Need help? Check out our Developer Forum to submit questions, share your apps, and provide feedback.

### Data.census.gov Newsletter – January 2024

Join the Mailing List

To sign up for updates please enter your email address.

### Guidance for Developers

This page provides developers and researchers on how to use the Census Data API and Census Microdata API from U.S. Census Bureau datasets.

### Request A Key

Submit Key Request

## Accessing our API

- Request a Key
  - NEW: Required for all API calls as of
- Browse the Discovery Tool
  - List of available datasets/endpoints (1,780 as of 5/7/2026)
  - Descriptions, etc.
- Review the Updates Periodically
  - Join the Mailing List
  - Check your Spam folder for alerts
- Share your Experiences
  - Developers Forum

## Developers Home Page

<https://www.census.gov/developers/>

# Discovery Tool

// Census.gov / Data / Developers / Updates / Census Data API Discovery Tool

**Census Data API Discovery Tool**

March 01, 2014

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The Census Data API Discovery Tool provides a machine-readable dataset discovery service and is available in three formats:

- [api.census.gov/data.html](https://api.census.gov/data.html)
- [api.census.gov/data.xml](https://api.census.gov/data.xml)
- [api.census.gov/data.json](https://api.census.gov/data.json)

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Census API: Datasets in /data/2017/acs/acs5/profile and its descendants

Title	Description	Vintage	Dataset Name	Geography List	Variable List	Group List	Tag List	Examples	Developer Documentation	API Base URL
ACS 5-Year Data Profiles	The American Community Survey (ACS) is an ongoing survey that provides data every year -- giving communities the current information they need to plan investments and services. The ACS covers a broad range of topics about social, economic, demographic, and housing characteristics of the U.S. population. The data profiles include the following geographies: nation, all states (including DC and Puerto Rico), all metropolitan areas, all congressional districts, all counties, all places and all tracts. Data profiles contain broad social, economic, housing, and demographic information. The data are presented as both counts and percentages. There are over 2,400 variables in this dataset.	2017	acs acs5 profile	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<i>N/A</i>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="https://api.census.gov/data/2017/acs/acs5/profile">https://api.census.gov/data/2017/acs/acs5/profile</a>

## Information Provided

- Dataset Description
- Variables Included, Changes, Variable Formats, and Notes
- Annotation Variables and Values
- Cross-Tab Variables
- Supported Geographies
- Example Calls
- Sample Use Cases
- Links to Program Technical Documentation

## Links to FTP Servers

# Why would you use the API?

- \* Need older data not available on data.census.gov, such as pre-2010 ACS data
- \* Pull data for multiple tables at once, rather than viewing individual tables on data.census.gov
- \* Need to gather a lot of data at once (usually involves use of third-party software)
- \* Need datasets not available in data.census.gov or the Microdata Access Tool (MDAT)
- \* Problems pulling data from data.census.gov
- \* Using Census data to create your own application or visualization
- \* Easily access data over time for timeseries datasets

# Demo

## QWI – Average Monthly Earnings of New Hires

- a) **By sex in Idaho in Q1 2025?**
- b) By sex Idaho and North Carolina in Q1 2025?
- c) By sex for NAICS 521113 and 524114 from Q1 2020 to Q1 2025?

# Finding Geography Codes

## States

− FIPS Codes for the States and District of Columbia

Name	FIPS State Numeric Code	Official USPS Code
Alabama	01	AL
Alaska	02	AK
Arizona	04	AZ
Arkansas	05	AR
California	06	CA
Colorado	08	CO
Connecticut	09	CT
Delaware	10	DE
District of Columbia	11	DC




<https://www.census.gov/library/reference/code-lists/ansi/ansi-codes-for-states.html>

## Additional Geographies

// Census.gov / Library / Census References / Code Lists / ANSI and FIPS Codes

### American National Standards Institute (ANSI), Federal Information Processing Series (FIPS), and Other Standardized Geographic Codes

American National Standards Institute (ANSI) codes are standardized numeric or alphabetic codes whose documentation is issued by ANSI to ensure uniform identification of geographic entities through all government agencies. ANSI oversees the issuance of the following two code series used by the Census Bureau: 1) InterNational Committee for Information Technology Standards (INCITS) codes, and 2) Geographic Names Information System (GNIS) codes. INCITS codes are formerly known as Federal Information Processing Standards (FIPS) codes. GNIS codes, referred to as the National Standards (NS) codes, were established by the United States Geological Survey (USGS) and are assigned by them with INCITS and ANSI oversight. The Census Bureau also assigns and issues codes for a number of geographic entities for which INCITS or GNIS codes are not available, and sometimes in addition to INCITS and GNIS codes.

Share   

**Related Information**

[Glossary](#)

[Geographic Codes](#)

<https://www.census.gov/library/reference/code-lists/ansi/ansi-codes-for-states.html>

# Average Earnings of New Hires by Sex in Idaho

- Available APIs at the top of the Developers Page

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Bureau

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## Developers

[REQUEST A KEY](#)

The Census Bureau has begun rolling out our datasets via APIs. Check out our [Discovery Tool](#). Sign up for our [newsletter](#) to get the latest updates and newest dataset addition. We also invite you to make requests for features / data via our [forum](#).

- **Select Dataset** - Select “**Longitudinal Employer-Household Dynamics (LEHD)**” and choose both Quarterly Workforce Indicators options. The first QWI link provides reference information and the second QWI link takes you to API Discovery Tool.

The screenshot shows a web interface with a sidebar on the left containing two expandable menu items: "International Trade Program" and "Longitudinal Employer-Household Dynamics (LEHD)". The "LEHD" item is highlighted with a red rectangular box. The main content area displays three dataset cards. The first card is titled "Post-Secondary Employment Outcomes (PSEO) Time Series (2001-2023)" with a date of February 12, 2026. The second card is titled "Quarterly Workforce Indicators (QWI) (Time Series: 1990 - present)" with a date of January 13, 2026, and is highlighted with a red rectangular box. The third card is titled "Quarterly Workforce Indicators (QWI) - Endpoint" with a date of August 08, 2018. Each card includes a brief description and a blue arrow icon pointing to the right. A vertical scrollbar is visible on the right side of the content area.

- Open Examples:
  - Locate desired dataset: Time Series LEHD: Sex by Age
  - Right-click “examples” and open it in a new tab

*Census API: Datasets in /data/timeseries/qwi and its descendants*

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation	API Base URL
Time Series Longitudinal Employer-Household Dynamics - QWI: Race by Ethnicity	The Quarterly Workforce Indicators (QWI) are a set of economic indicators including employment, job creation, earnings, and other measures of employment flows. The QWI are reported using detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity). For more information see <a href="http://lehd.ces.census.gov/data/#qwi">http://lehd.ces.census.gov/data/#qwi</a>	N/A	timeseries>qwi>rh	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/qwi/rh">http://api.census.gov/data/timeseries/qwi/rh</a>
Time Series Longitudinal Employer-Household Dynamics - QWI: Sex by Age	The Quarterly Workforce Indicators (QWI) are a set of economic indicators including employment, job creation, earnings, and other measures of employment flows. The QWI are reported using detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity). For more information see <a href="http://lehd.ces.census.gov/data/#qwi">http://lehd.ces.census.gov/data/#qwi</a>	N/A	timeseries>qwi>sa	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/qwi/sa">http://api.census.gov/data/timeseries/qwi/sa</a>
Time Series Longitudinal Employer-Household Dynamics - QWI: Sex by Education	The Quarterly Workforce Indicators (QWI) are a set of economic indicators including employment, job creation, earnings, and other measures of employment flows. The QWI are reported using detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity). For more information see <a href="http://lehd.ces.census.gov/data/#qwi">http://lehd.ces.census.gov/data/#qwi</a>	N/A	timeseries>qwi>se	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/qwi/se">http://api.census.gov/data/timeseries/qwi/se</a>

- Choose Your Geography – Explore the available geographic levels on the left, copy a sample URL, and open a new tab

*Census API: Examples for /data/timeseries/qwi/sa*

Geography Hierarchy	Geography Level	Example URL	Number
state	N/A	<a href="https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=state:01&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=state:01&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE</a>	1
state > county	N/A	<a href="https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=county:*&amp;in=state:02&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=county:*&amp;in=state:02&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE</a>	2
		<a href="https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=county:195&amp;in=state:02&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=county:195&amp;in=state:02&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE</a>	3
state > metropolitan statistical area/micropolitan statistical area	N/A	<a href="https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=metropolitan%20statistical%20area/micropolitan%20statistical%20area:*&amp;in=state:24&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=metropolitan%20statistical%20area/micropolitan%20statistical%20area:*&amp;in=state:24&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE</a>	4
		<a href="https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=metropolitan%20statistical%20area/micropolitan%20statistical%20area:19060&amp;in=state:24&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=metropolitan%20statistical%20area/micropolitan%20statistical%20area:19060&amp;in=state:24&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE</a>	5
state > workforce investment area	N/A	<a href="https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=workforce%20investment%20area:001006&amp;in=state:24&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&amp;for=workforce%20investment%20area:001006&amp;in=state:24&amp;time=2010-Q1&amp;key=YOUR_KEY_GOES_HERE</a>	6

*6 examples*

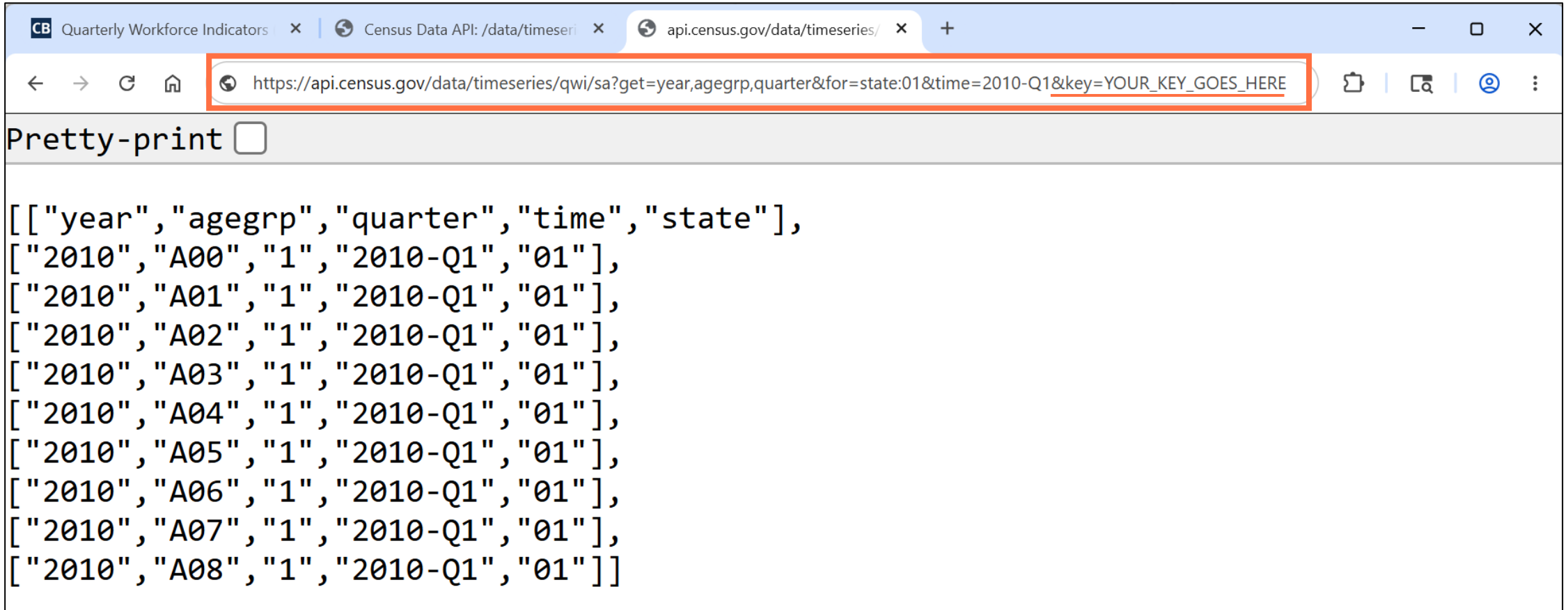


- &for=state:01 gets data for Alabama

Choose the state example

<https://api.census.gov/data/timeseries/qwi/sa/examples.html>

- Enter Your API Key in Place of “YOUR\_KEY\_GOES\_HERE”
- Press Enter And View Results



Quarterly Workforce Indicators | Census Data API: /data/timeseri | api.census.gov/data/timeseries/

← → ↻ 🏠 [https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:01&time=2010-Q1&key=YOUR\\_KEY\\_GOES\\_HERE](https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:01&time=2010-Q1&key=YOUR_KEY_GOES_HERE) 📄 🔍 🌐 ⋮

Pretty-print

```
[["year", "agegrp", "quarter", "time", "state"],  
["2010", "A00", "1", "2010-Q1", "01"],  
["2010", "A01", "1", "2010-Q1", "01"],  
["2010", "A02", "1", "2010-Q1", "01"],  
["2010", "A03", "1", "2010-Q1", "01"],  
["2010", "A04", "1", "2010-Q1", "01"],  
["2010", "A05", "1", "2010-Q1", "01"],  
["2010", "A06", "1", "2010-Q1", "01"],  
["2010", "A07", "1", "2010-Q1", "01"],  
["2010", "A08", "1", "2010-Q1", "01"]]
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:01&time=2010-Q1>

- **Edit Geography Selection To Retrieve Data for Idaho** – In this example, replace the state code 01 (for Alabama) with state code **16** (for Idaho)

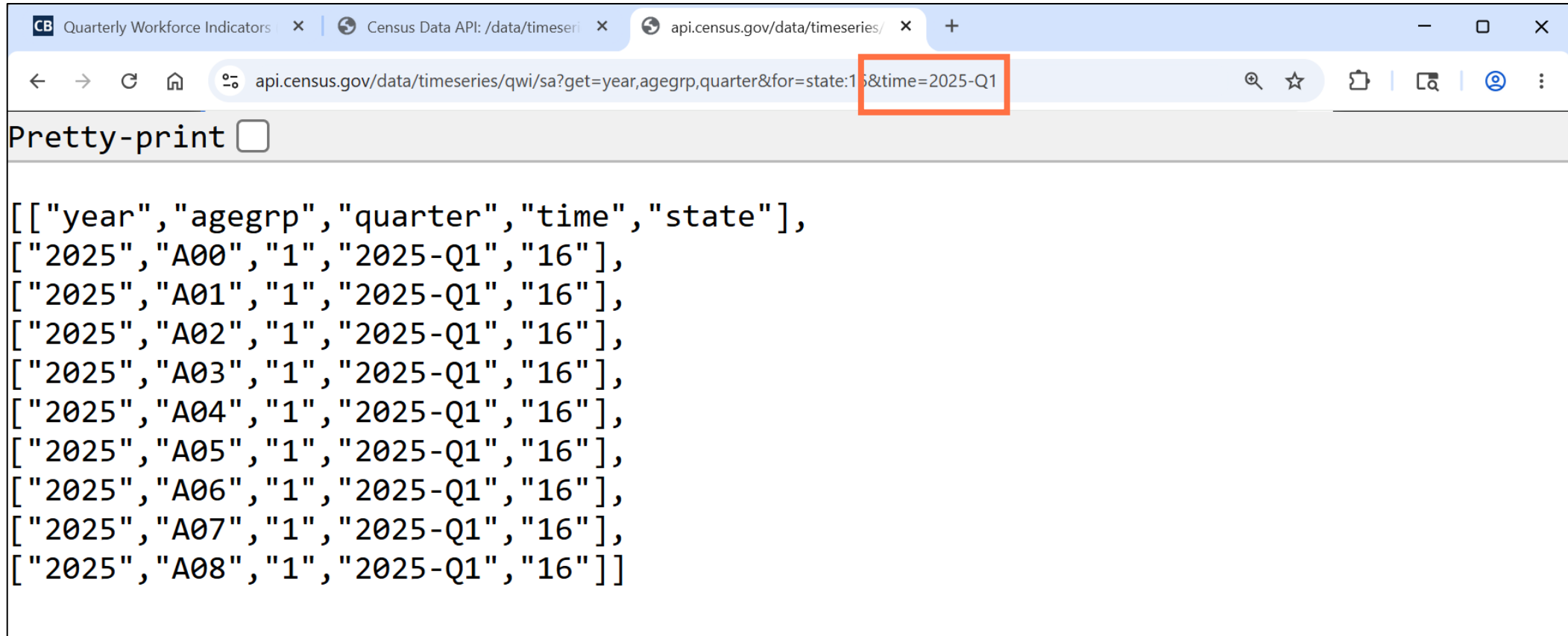
api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:16&time=2010-Q1

Pretty-print

```
[["year", "agegrp", "quarter", "time", "state"],  
["2010", "A00", "1", "2010-Q1", "16"],  
["2010", "A01", "1", "2010-Q1", "16"],  
["2010", "A02", "1", "2010-Q1", "16"],  
["2010", "A03", "1", "2010-Q1", "16"],  
["2010", "A04", "1", "2010-Q1", "16"],  
["2010", "A05", "1", "2010-Q1", "16"],  
["2010", "A06", "1", "2010-Q1", "16"],  
["2010", "A07", "1", "2010-Q1", "16"],  
["2010", "A08", "1", "2010-Q1", "16"]]
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:16&time=2010-Q1>

- **Edit Time To Retrieve Data for Q1 2025** – In this example, replace 2010-Q1 with 2025-Q1



The screenshot shows a web browser window with the following URL: `api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:16&time=2025-Q1`. The `&time=2025-Q1` portion is highlighted with a red box. Below the browser window, the JSON response is displayed:

```
[[{"year": "2025", "agegrp": "A00", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A01", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A02", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A03", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A04", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A05", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A06", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A07", "quarter": "1", "time": "2025-Q1", "state": "16"}, {"year": "2025", "agegrp": "A08", "quarter": "1", "time": "2025-Q1", "state": "16"}]]
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,agegrp,quarter&for=state:16&time=2025-Q1>

- Find Your Variables: Click the **variables** link for the “Time Series LEHD: Sex by Age” dataset on QWI section of the Discovery Tool

*Census API: Datasets in /data/timeseries/qwi and its descendants*

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation	API Base URL
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Time Series Longitudinal Employer-Household Dynamics - QWI: Sex by Age	The Quarterly Workforce Indicators (QWI) are a set of economic indicators including employment, job creation, earnings, and other measures of employment flows. The QWI are reported using detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity). For more information see <a href="http://lehd.ces.census.gov/data/#qwi">http://lehd.ces.census.gov/data/#qwi</a>	N/A	timeseries>qwi>sa	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/qwi/sa">http://api.census.gov/data/timeseries/qwi/sa</a>
Time Series Longitudinal Employer-Household Dynamics - QWI: Sex by Education	The Quarterly Workforce Indicators (QWI) are a set of economic indicators including employment, job creation, earnings, and other measures of employment flows. The QWI are reported using detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity). For more information see <a href="http://lehd.ces.census.gov/data/#qwi">http://lehd.ces.census.gov/data/#qwi</a>	N/A	timeseries>qwi>se	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/qwi/se">http://api.census.gov/data/timeseries/qwi/se</a>

- Find Your Variables: EarnHirNS (average monthly earnings for new hires) and sex. Variables are case-sensitive.

Quarterly Workforce Indicators | x Census Data API: /data/timeseri x api.census.gov/data/timeseries/ x +

api.census.gov/data/timeseries/qwi/sa/variables.html

*Census Data API: Variables in /data/timeseries/qwi/sa/variables*

Name	Label	Concept	Required	Attributes	Limit	Predicate Type	Group
<a href="#">agegrp</a>	Group: Age group code (WIA)	QWI Categorical Variable	default displayed		9	string	N/A
<a href="#">EarnBeg</a>	End-of-Quarter Employment: Average Monthly Earnings	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">EarnHirAS</a>	Hires All (Stable): Average Monthly Earnings	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">EarnHirNS</a>	Hires New (Stable): Average Monthly Earnings	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">SepSnx</a>	Separations (Stable), Next Quarter: Counts (Flow out of Full-Quarter Employment)	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">sex</a>	Group: Gender code	QWI Categorical Variable	default displayed		3	string	N/A
<a href="#">sFrmJbC</a>	Flag for Firm Job Change:Net Change	QWI Status Flag	not required		0	int	N/A

- **Update Query With Variables Of Interest:** Replace agegrp with **sex,EarnHirNS**
- **Press enter**
- **View Results** – Average monthly earnings for new hires in Q1 2025 in Idaho was \$3,261

```
api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16&time=2025-Q1
```

Pretty-print

```
[["year","sex","EarnHirNS","quarter","time","state"],  
["2025","0","3261","1","2025-Q1","16"],  
["2025","1","3875","1","2025-Q1","16"],  
["2025","2","2643","1","2025-Q1","16"]]
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16&time=2025-Q1>

# Identifying Categorical Variables in QWI API

Reference the 'Concept' column in the variables list of the API Discovery Tool

*Census Data API: Variables in /data/timeseries/qwi/sa/variables*

Name	Label	Concept	Required	Attributes	Limit	Predicate Type	Group
<a href="#">sEmpSpv</a>	Quarter: Counts	QWI Status Flag	not required		0	int	N/A
<a href="#">sEmpTotal</a>	Flag for Employment-Reference Quarter: Counts	QWI Status Flag	not required		0	int	N/A
<a href="#">Sep</a>	Separations: Counts	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">SepBeg</a>	Beginning-of-Quarter Separations	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">SepBegR</a>	Beginning-of-Quarter Separation Rate	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">SepS</a>	Separations (Stable): Counts (Flow out of Full-Quarter Employment)	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">SepSnx</a>	Separations (Stable), Next Quarter: Counts (Flow out of Full-Quarter Employment)	Quarterly Workforce Indicators (QWI)	not required		0	int	N/A
<a href="#">sex</a>	Group: Gender code	QWI Categorical Variable	default displayed		3	string	N/A
<a href="#">sFrmJbC</a>	Flag for Firm Job Change:Net Change	QWI Status Flag	not required		0	int	N/A
<a href="#">sFrmJbCS</a>	Flag for Job Change (Stable): Net Change	QWI Status Flag	not required		0	int	N/A
<a href="#">sFrmJbGn</a>	Flag for Firm Job Gains: Counts (Job Creation)	QWI Status Flag	not required		0	int	N/A
<a href="#">sFrmJbGnS</a>	Flag for Firm Job Gains (Stable): Counts	QWI Status Flag	not required		0	int	N/A

# Understanding Categorical Variables in QWI API

View Excel files on the QWI Developers page to find the meaning of categorical variable values

### Worker Characteristics

[api.census.gov/data/timeseries/qwi/sa?  
get=Emp&for=county:198&in=state:02&year=2012&quarter=1&sex=1&sex=2&agegrp=A02&agegrp=A07&ownercode=A05&firmsize=1&seasonadj=U&industry=11&key=\[userkey\]](https://api.census.gov/data/timeseries/qwi/sa?get=Emp&for=county:198&in=state:02&year=2012&quarter=1&sex=1&sex=2&agegrp=A02&agegrp=A07&ownercode=A05&firmsize=1&seasonadj=U&industry=11&key=[userkey])

- Select desired Worker Characteristics as a “predicate” (matching QWI Endpoint required).
- View available [agegrp](#) characteristics.
- View available [sex](#) characteristics.
- View available [education](#) characteristics.
- View available [race](#) characteristics.
- View available [ethnicity](#) characteristics.

### Industry

[api.census.gov/data/timeseries/qwi/sa?  
get=Emp&for=county:198&in=state:02&year=2012&quarter=1&sex=1&sex=2&agegrp=A02&agegrp=A07&ownercode=A05&firmsize=1&seasonadj=U&industry=11&key=\[userkey\]](https://api.census.gov/data/timeseries/qwi/sa?get=Emp&for=county:198&in=state:02&year=2012&quarter=1&sex=1&sex=2&agegrp=A02&agegrp=A07&ownercode=A05&firmsize=1&seasonadj=U&industry=11&key=[userkey])

- Select the desired NAICS Industry classification codes as a “predicate”. Characteristics are identified by 3-digit or NAICS 4-digit codes.
- View available [industry](#) characteristics.

### Firm Age/Size

[api.census.gov/data/timeseries/qwi/sa?  
get=Emp&for=county:198&in=state:02&year=2012&quarter=1&sex=1&sex=2&agegrp=A02&agegrp=A07&ownercode=A05&firmsize=1&seasonadj=U&industry=11&key=\[userkey\]](https://api.census.gov/data/timeseries/qwi/sa?get=Emp&for=county:198&in=state:02&year=2012&quarter=1&sex=1&sex=2&agegrp=A02&agegrp=A07&ownercode=A05&firmsize=1&seasonadj=U&industry=11&key=[userkey])

	A	B	C	D	E
1	sex	label			
2		0 All Sexes			
3		1 Male			
4		2 Female			
5					
6					

label\_sex

# Demo

## QWI – Average Monthly Earnings of New Hires

- a) By sex in Idaho in Q1 2025?
- b) By sex Idaho and North Carolina in Q1 2025?**
- c) By sex for NAICS 521113 and 524114 from Q1 2020 to Q1 2025?

- Edit Geography Selection To Retrieve Data for North Carolina – After state code 16 type ,37 and press enter

api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=2025-Q1

Pretty-print

```
[["year", "sex", "EarnHirNS", "quarter", "time", "state"],  
["2025", "0", "3260", "1", "2025-Q1", "16"],  
["2025", "1", "3875", "1", "2025-Q1", "16"],  
["2025", "2", "2641", "1", "2025-Q1", "16"],  
["2025", "0", "3697", "1", "2025-Q1", "37"],  
["2025", "1", "4298", "1", "2025-Q1", "37"],  
["2025", "2", "3158", "1", "2025-Q1", "37"]]
```

# Additional Options for Categorical Variables in QWI API

**Categorical variables typically provide results for all categories by default:**

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16&time=2025-Q1>

```
[["year", "sex", "EarnHirNS", "quarter", "time", "state"],  
["2025", "0", "3260", "1", "2025-Q1", "16"],  
["2025", "1", "3875", "1", "2025-Q1", "16"],  
["2025", "2", "2641", "1", "2025-Q1", "16"]]
```

**Add parameters to the end of your query when you would like to only return data for specific categories:**

**&[InsertCategoricalVariable]=[VariableValue]**

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16&time=2025-Q1&sex=2>

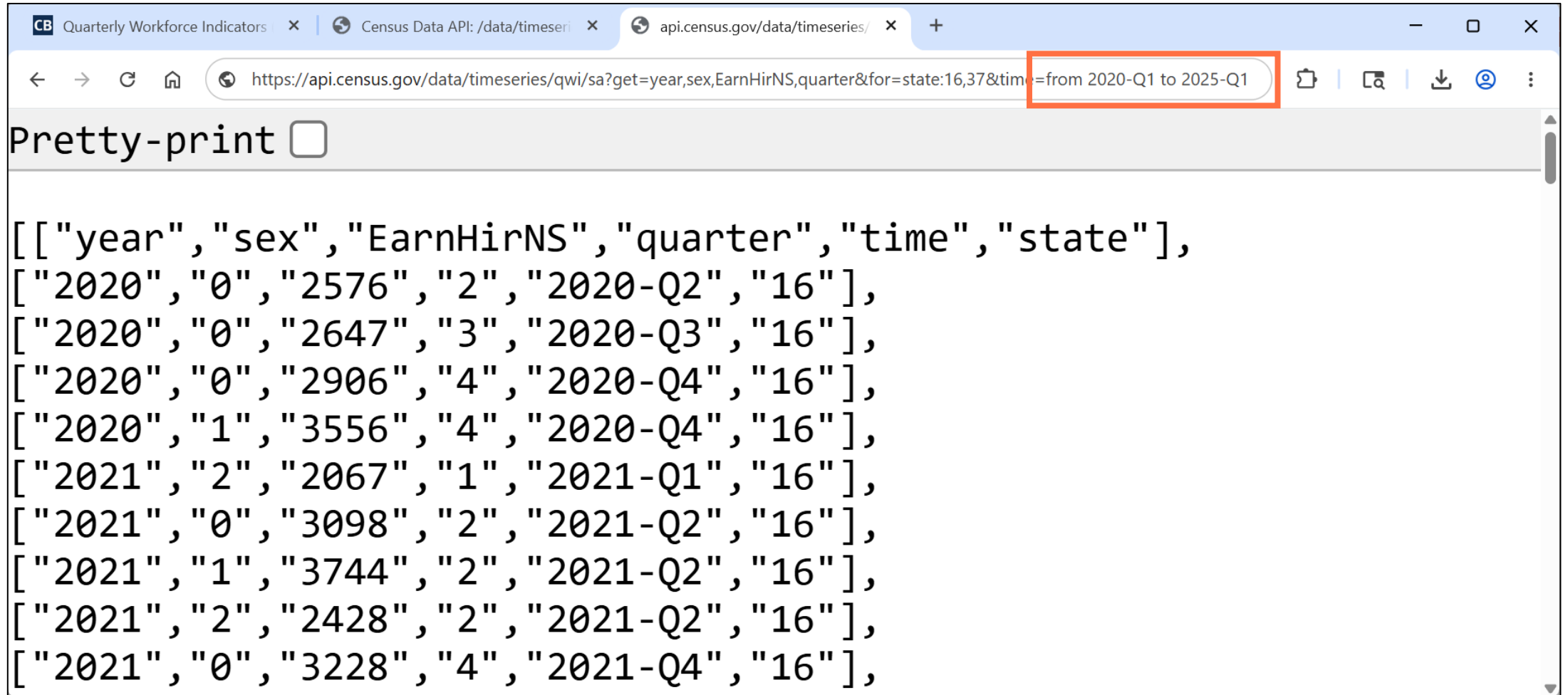
```
[["year", "sex", "EarnHirNS", "quarter", "time", "sex", "state"],  
["2025", "2", "2641", "1", "2025-Q1", "2", "16"]]
```

# Demo

## QWI – Average Monthly Earnings of New Hires

- a) By sex in Idaho in Q1 2025?
- b) By sex Idaho and North Carolina in Q1 2025?
- c) **By sex for NAICS 521113 and 524114 from Q1 2020 to Q1 2025?**

- Edit Time Retrieve Data Q1 2020 through Q1 2025 – Replace 2025-Q1 with from 2020-Q1 to 2025-Q1 and press enter



Quarterly Workforce Indicators x Census Data API: /data/timeseri x api.census.gov/data/timeseries/ +

← → ↻ 🏠 <https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=from 2020-Q1 to 2025-Q1> 📄 🖨️ ⬇️ 🌐 ⋮

Pretty-print

```
[["year", "sex", "EarnHirNS", "quarter", "time", "state"],  
["2020", "0", "2576", "2", "2020-Q2", "16"],  
["2020", "0", "2647", "3", "2020-Q3", "16"],  
["2020", "0", "2906", "4", "2020-Q4", "16"],  
["2020", "1", "3556", "4", "2020-Q4", "16"],  
["2021", "2", "2067", "1", "2021-Q1", "16"],  
["2021", "0", "3098", "2", "2021-Q2", "16"],  
["2021", "1", "3744", "2", "2021-Q2", "16"],  
["2021", "2", "2428", "2", "2021-Q2", "16"],  
["2021", "0", "3228", "4", "2021-Q4", "16"],
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=from 2020-Q1 to 2025-Q1>

- Add Parameter for Categorical Variable – Add `&industry=524113&industry=524114` to the end of the API query to restrict results to these NAICS
- In Q1 of 2025, \$10,552 was the average monthly earnings for male new hires in Idaho working in NAICS 524113 (Direct Life Insurance Carriers)

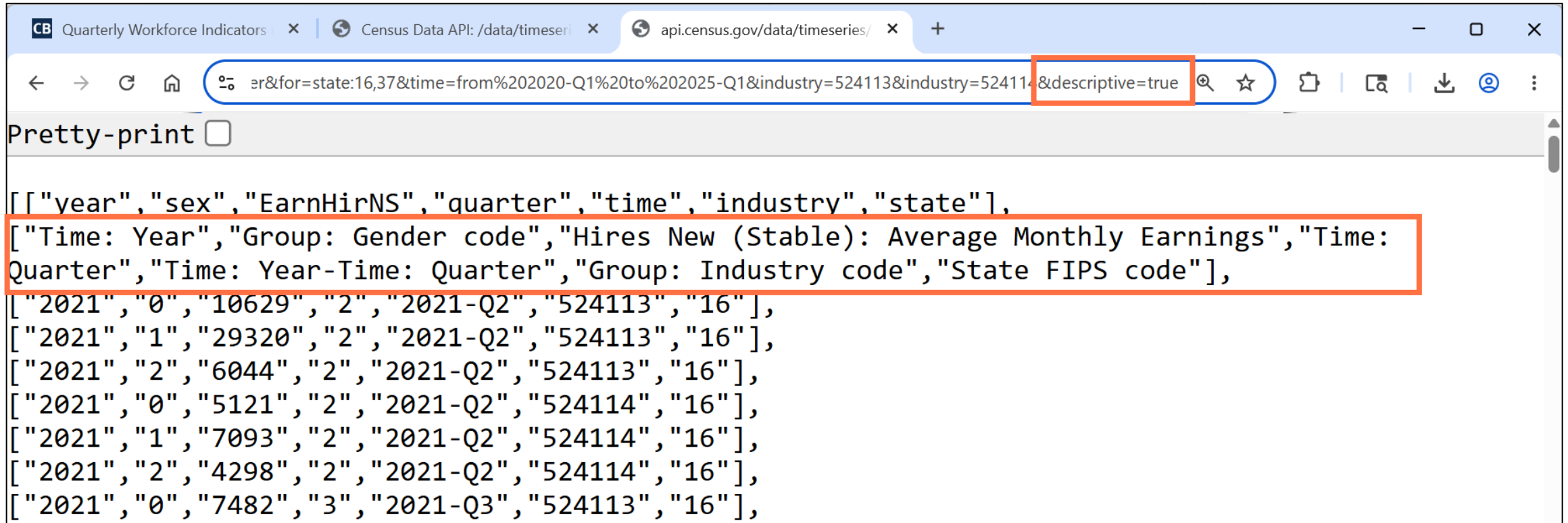
```

[["year", "sex", "EarnHirNS", "quarter", "time", "industry", "state"],
["2024", "0", "4201", "4", "2024-Q4", "524113", "16"],
["2024", "1", "4950", "4", "2024-Q4", "524113", "16"],
["2024", "2", "2774", "4", "2024-Q4", "524113", "16"],
["2024", "0", "6815", "4", "2024-Q4", "524114", "16"],
["2024", "1", "8866", "4", "2024-Q4", "524114", "16"],
["2024", "2", "5581", "4", "2024-Q4", "524114", "16"],
["2025", "0", "7978", "1", "2025-Q1", "524113", "16"],
["2025", "1", "10552", "1", "2025-Q1", "524113", "16"],
["2025", "2", "5405", "1", "2025-Q1", "524113", "16"],

```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=from%202020-Q1%20to%202025-Q1&industry=524113&industry=524114>

- **Get API Variable Labels:** At the end of the API query, type **&descriptive=true**



The screenshot shows a web browser window with the URL `https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=from%202020-Q1%20to%202025-Q1&industry=524113&industry=524114&descriptive=true`. The response is displayed in a text area, and the following labels are highlighted with a red box:

```
[["year", "sex", "EarnHirNS", "quarter", "time", "industry", "state"],  
["Time: Year", "Group: Gender code", "Hires New (Stable): Average Monthly Earnings", "Time:  
Quarter", "Time: Year-Time: Quarter", "Group: Industry code", "State FIPS code"],  
["2021", "0", "10629", "2", "2021-Q2", "524113", "16"],  
["2021", "1", "29320", "2", "2021-Q2", "524113", "16"],  
["2021", "2", "6044", "2", "2021-Q2", "524113", "16"],  
["2021", "0", "5121", "2", "2021-Q2", "524114", "16"],  
["2021", "1", "7093", "2", "2021-Q2", "524114", "16"],  
["2021", "2", "4298", "2", "2021-Q2", "524114", "16"],  
["2021", "0", "7482", "3", "2021-Q3", "524113", "16"],
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=from%202020-Q1%20to%202025-Q1&industry=524113&industry=524114&descriptive=true>

- **Get CSV Download:** At the end of the API query, type **&outputFormat=csv**

Quarterly Workforce Indicators | Census Data API: /data/timeseri | api.census.gov/data/timeseries/

16,37&time=from%202020-Q1%20to%202025-Q1&industry=524113&industry=524114&descriptive=true&outputFormat=csv

Pretty-print

```
[["year", "sex", "EarnHirNS", "quarter", "time", "industry", "state"],  
["Time: Year", "Group: Gender code", "Hires New (Stable): Average Mon  
Quarter", "Time: Year-Time: Quarter", "Group: Industry code", "State F  
["2021", "0", "10629", "2", "2021-Q2", "524113", "16"],  
["2021", "1", "29320", "2", "2021-Q2", "524113", "16"],  
["2021", "2", "6044", "2", "2021-Q2", "524113", "16"],  
["2021", "0", "5121", "2", "2021-Q2", "524114", "16"],  
["2021", "1", "7093", "2", "2021-Q2", "524114", "16"],  
["2021", "2", "4298", "2", "2021-Q2", "524114", "16"],  
["2021", "0", "7482", "3", "2021-Q3", "524113", "16"],  
["2021", "1", "7478", "3", "2021-Q3", "524113", "16"],  
["2021", "2", "7488", "3", "2021-Q3", "524113", "16"],  
["2021", "0", "4610", "3", "2021-Q3", "524114", "16"]]
```

<https://api.census.gov/data/timeseries/qwi/sa?get=year,sex,EarnHirNS,quarter&for=state:16,37&time=from%202020-Q1%20to%202025-Q1&industry=524113&industry=524114&descriptive=true&outputFormat=csv>

## View Output in Excel

	A	B	C	D	E	F	G
1	year	sex	EarnHirNS	quarter	time	industry	state
2	Time: Year	Group: Gender code	Hires New (Stable): Average Monthly Earnings	Time: Quarter	Time: Year-Time: Quarter	Group: Industry code	State FIPS code
3	2020	0	4999	4	2020-Q4	524113	16
4	2020	1	6854	4	2020-Q4	524113	16
5	2020	2	3020	4	2020-Q4	524113	16
6	2020	0	5058	4	2020-Q4	524114	16
7	2020	1	6847	4	2020-Q4	524114	16
8	2020	2	4355	4	2020-Q4	524114	16
9	2021	0	3742	1	2021-Q1	524113	16
10	2021	1	3441	1	2021-Q1	524113	16
11	2021	2	3809	1	2021-Q1	524113	16
12	2021	0	4445	1	2021-Q1	524114	16

Excel interface showing the worksheet 'sa (1)' with a scroll bar and status bar. The status bar indicates 'Ready' and 'Accessibility: Unavailable'. The zoom level is set to 110%.

# New Post-Secondary Employment Outcomes Partners

NEW: Idaho and North Carolina now have some institutions in PSEO

Use **INST\_STATE** to get data by state in PSEO API

- **&INST\_STATE=16** (Idaho)
- **&INST\_STATE=37** (North Carolina)

```
[[{"LABEL_INSTITUTION", "LABEL_DEGREE_LEVEL", "LABEL_CIPCODE", "Y1_P50_EARNINGS", "Y1_P25_EARNINGS", "Y1_P75_EARNINGS", "INSTITUTION", "CIPCODE", "DEGREE_LEVEL", "GRAD_COHORT", "INST_STATE", "us"}, {"Institutions in Idaho", "Baccalaureate", "All Instructional Programs", "43335", "28891", "61164", "16", "00", "05", "2019", "16", "1"}, {"Institutions in North Carolina", "Baccalaureate", "All Instructional Programs", "45143", "30677", "64797", "37", "00", "05", "2019", "37", "1"}, {"Institutions in Idaho", "Baccalaureate", "Engineering", "68619", "56011", "79894", "16", "14", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Agricultural/Animal/Plant/Veterinary Science and Related Fields", "40037", "28546", "56700", "16", "01", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Natural Resources and Conservation", "35872", "24781", "48715", "16", "03", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Communication, Journalism, and Related Programs", "39087", "29135", "51223", "16", "09", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Computer and Information Sciences and Support Services", "67922", "49411", "84248", "16", "11", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Education", "42318", "28820", "50530", "16", "13", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Engineering/Engineering-Related Technologies/Technicians", "67307", "52354", "81043", "16", "15", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "Family and Consumer Sciences/Human Sciences", "30137", "22640", "37389", "16", "19", "05", "2019", "16", "1"}, {"Institutions in Idaho", "Baccalaureate", "English Language and Literature/Letters", "28969", "23168", "42002", "16", "23", "05", "2019", "16", "1"}]]
```



# Hands-On Practice!

## data.census.gov Workshops



These participatory classes walk you through examples of using data.census.gov to find demographic and economic data. Time is allotted throughout the training for questions, and participation is strongly encouraged.

- Please click the box below to view available classes.
- Registration is required to attend these workshops. Attendance is limited to 50 participants per session.

\*\*\*When registering, if you receive a message that you are waitlisted, please sign up for later class. We are trying to move classes to Waitlist as they fill, but sometimes there is a lag in that update.

<p><b>Basics of Finding Data Using data.census.gov</b></p> <p>In these participatory classes, data.census.gov outreach staff walk you through examples that cover basics and advanced of using data.census.gov to find data.</p>	<p><b>Advanced Usage of data.census.gov</b></p> <p>These participatory classes walk you through some of the more advanced ways to use data.census.gov to find demographic and economic data.</p>	<p><b>Making the Most of Mapping in data.census.gov</b></p> <p>Join us in this participatory class as we look at mapping capabilities in data.census.gov.</p>
<p><b>Basics of Using the Microdata Access Tool in data.census.gov</b></p> <p>Join us for a participatory class that walks you through the Microdata Access Tool (MDAT) within data.census.gov.</p>	<p><b>Basics of Using the Census API</b></p> <p>Join us in this hands-on class as we learn how to access data through the Census Data Application Programming Interface (API).</p>	<p><b>Data.census.gov Geography Essentials for Beginners</b></p> <p>This introductory workshop is geared towards data users who want to master the fundamentals of census geographies.</p>
<p><b>Finding American Community Survey Data</b></p> <p>In this participatory class, our staff will walk you through various ways of accessing data from the ACS via three of our data tools.</p>	<p><b>Finding Economic Data on data.census.gov and the API</b></p> <p>This workshop is geared towards intermediate/advanced data.census.gov users who want to learn how to access economic datasets on data.census.gov and the API.</p>	



[census.gov/data/what-is-data-census-gov/workshops.html](https://census.gov/data/what-is-data-census-gov/workshops.html)

# Learn More

## API Resources Page:

[census.gov/data/what-is-data-census-gov/guidance-for-data-users/how-to-materials-for-using-the-census-api.html](https://census.gov/data/what-is-data-census-gov/guidance-for-data-users/how-to-materials-for-using-the-census-api.html)

## Feedback/Data Questions:

[census.data@census.gov](mailto:census.data@census.gov)

## Developers Forum on Slack:

[census.gov/data/developers/api-forum.html](https://census.gov/data/developers/api-forum.html)

The screenshot shows the top navigation bar of the Census Bureau website. The logo is on the left, and navigation links for 'About', 'Events', 'Releases', and 'Guidance' are in the center. A 'VISIT DATA.CENSUS.GOV' button is on the right. Below the navigation is a breadcrumb trail: '// Census.gov / Data / data.census.gov Resources / Guidance for Data Users / How-to Materials for Using the Census API'. The main heading is 'How-to Materials for Using the Census API'. To the left of the main content is a sidebar with links: 'Within Guidance for Data Users', 'Frequently Asked Questions', 'How-to Materials for Using data.census.gov', 'How-to Materials for Using the Census API', 'How-to Materials for Using the Microdata Access', 'Video Tutorials', and 'Webinars'. Below the heading are social media share icons for Facebook, Twitter, and LinkedIn. The main text reads: 'Do you have questions on how to use the Census API? Check out our step-by-step guidance to learn how to use the Census API to find the data you need. To learn more about the Census API, and to begin using it to locate data, visit our Census API Developers page.' Below this is a link for 'Census Data API Flyer < 1.0 MB>'. At the bottom of the page is a 'Help improve this site' button.

# Supplemental Example

## QWI – Average Monthly Earnings of New Hires

- a) By sex in Idaho in Q1 2025?
- b) By sex Idaho and North Carolina in Q1 2025?
- c) By sex for NAICS 521113 and 524114 from Q1 2020 to Q1 2025?

## PSEO – Earnings of Bachelor’s Degree Holders

- a) By major from the 2019 cohort in Idaho and North Carolina?

# Earnings for Bachelor's Degree Holders by Major from 2019 Cohort

- Available APIs at the top of the Developers Page

United States<sup>®</sup>  
**Census**  
Bureau

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## Developers

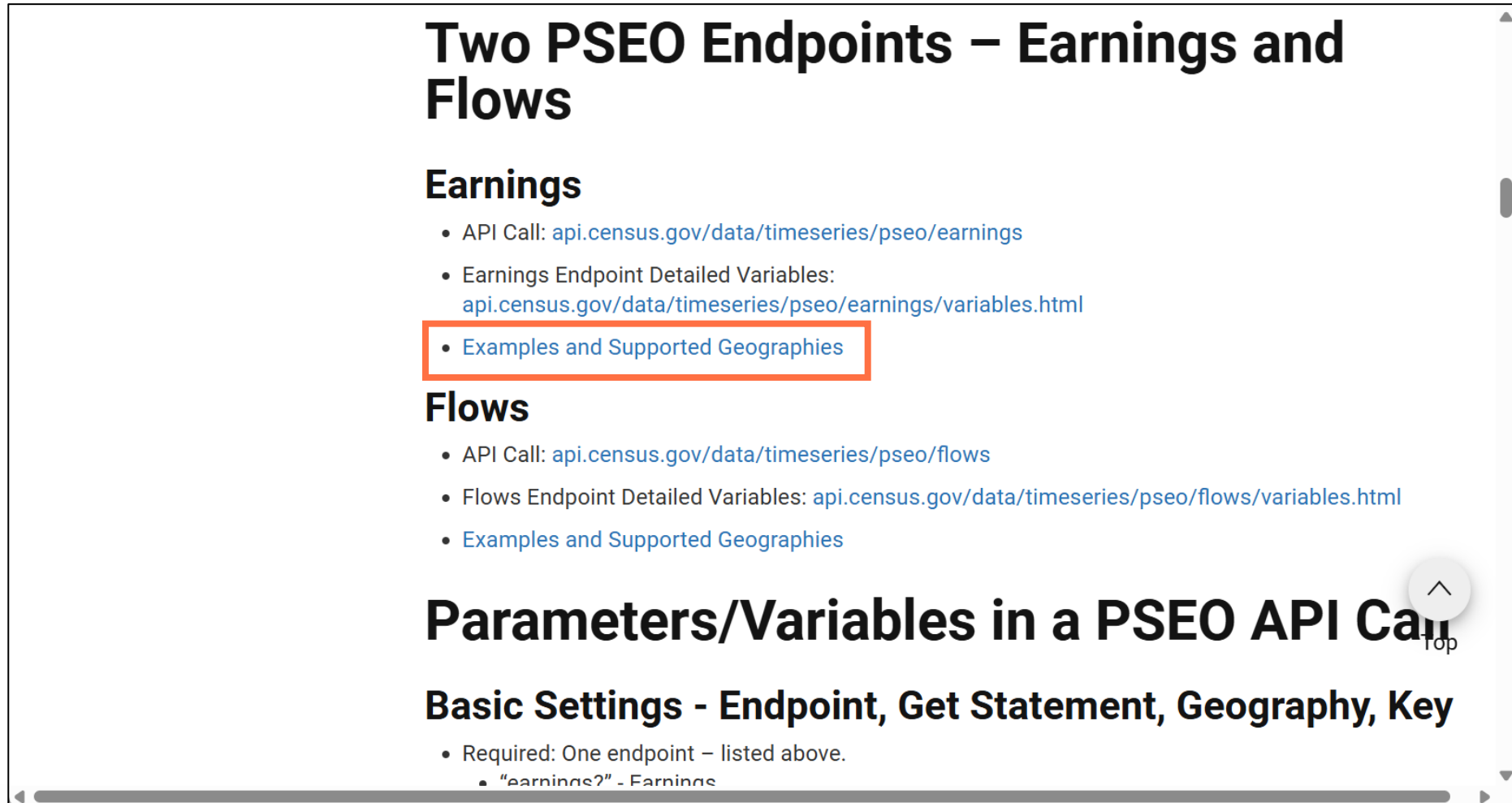
[REQUEST A KEY](#)

The Census Bureau has begun rolling out our datasets via APIs. Check out our [Discovery Tool](#). Sign up for our [newsletter](#) to get the latest updates and newest dataset addition. We also invite you to make requests for features / data via our [forum](#).

- **Select Dataset** - Select “**Longitudinal Employer-Household Dynamics (LEHD)**” and choose Post-Secondary Employment Outcomes (PSEO).

The screenshot shows a web interface for selecting datasets. At the top, there is a search bar with the text "International Trade Program". Below it, a list of datasets is displayed. The first dataset, "Longitudinal Employer-Household Dynamics (LEHD)", is highlighted with an orange border. Below this, the "Post-Secondary Employment Outcomes (PSEO) Time Series (2001-2022)" dataset is also highlighted with an orange border. This dataset is dated January 10, 2025, and its description states: "PSEO data provide earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution." Below this, two other datasets are visible: "Quarterly Workforce Indicators (QWI) (Time Series: 1990 - present)" dated September 12, 2016, and "Quarterly Workforce Indicators (QWI) - Endpoint" dated August 08, 2018. Each dataset entry includes a brief description and a blue arrow icon pointing to the right. A "Top" button is located at the bottom right of the page.

- **Select Endpoint** - Select “**Examples and Supported Geographies**” under the Earnings section.



## Two PSEO Endpoints – Earnings and Flows

### Earnings

- API Call: [api.census.gov/data/timeseries/pseo/earnings](https://api.census.gov/data/timeseries/pseo/earnings)
- Earnings Endpoint Detailed Variables: [api.census.gov/data/timeseries/pseo/earnings/variables.html](https://api.census.gov/data/timeseries/pseo/earnings/variables.html)
- **Examples and Supported Geographies**

### Flows

- API Call: [api.census.gov/data/timeseries/pseo/flows](https://api.census.gov/data/timeseries/pseo/flows)
- Flows Endpoint Detailed Variables: [api.census.gov/data/timeseries/pseo/flows/variables.html](https://api.census.gov/data/timeseries/pseo/flows/variables.html)
- [Examples and Supported Geographies](#)

## Parameters/Variables in a PSEO API Call

### Basic Settings - Endpoint, Get Statement, Geography, Key

- Required: One endpoint – listed above.
  - “earnings?” - Earnings

- **Open Examples:**
  - Right-click “examples” and open it in a new tab

*Census API: Datasets in /data/timeseries/pseo/earnings and its descendants*

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation	API Base URL
Post-Secondary Employment Outcomes (PSEO) - Earnings	Post-Secondary Employment Outcomes (PSEO) are experimental tabulations developed by researchers at the U.S. Census Bureau. PSEO data provide earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution. These statistics are generated by matching university transcript data with a national database of jobs, using state-of-the-art confidentiality protection mechanisms to protect the underlying data. The Earnings endpoint provides access to graduate earnings at the 25th, 50th, and 75th percentiles, one, five, and 10 years after graduation, by institution, degree level, degree field, and graduation cohort. PSEO data will be updated as new cells are able to be published.	N/A	timeseries>pseo>earnings	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/pseo/earnings">http://api.census.gov/data/timeseries/pseo/earnings</a>
<i>1 dataset</i>											

- **Choose Your Geography** – Explore the available geographic levels on the left, copy a sample URL, and open a new tab

*Census API: Examples for /data/timeseries/pseo/earnings*

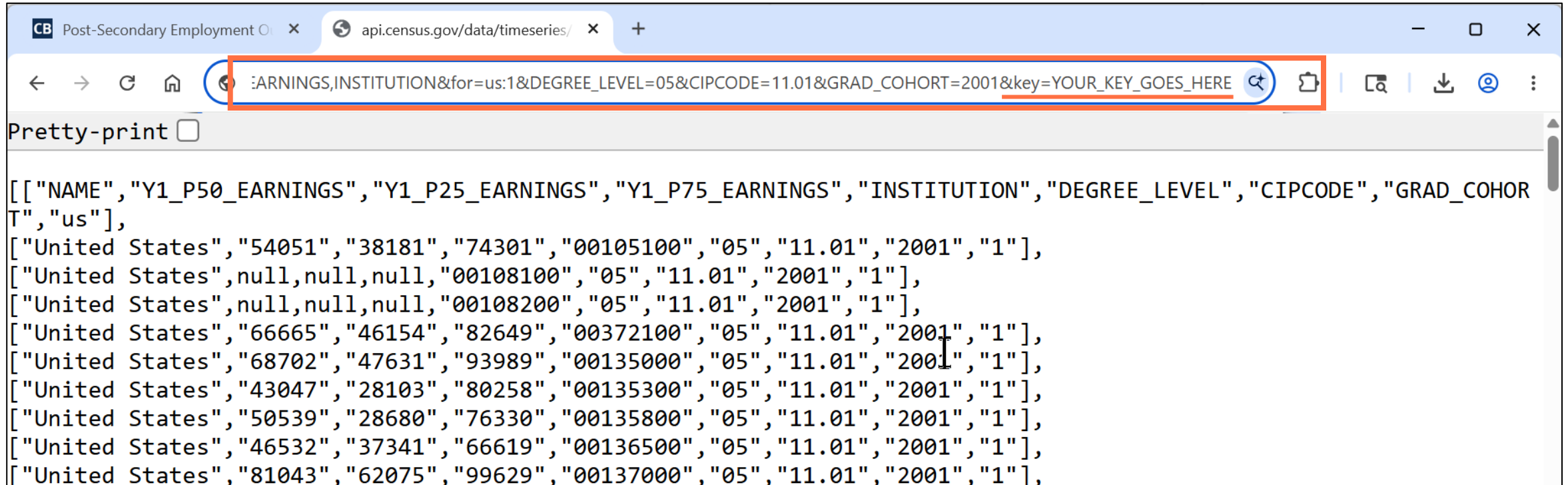
Geography Hierarchy	Geography Level	Example URL	Number of Examples
us	010	<a href="https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&amp;for=us:*&amp;DEGREE_LEVEL=05&amp;CIPCODE=11.01&amp;GRAD_COHORT=2001&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&amp;for=us:*&amp;DEGREE_LEVEL=05&amp;CIPCODE=11.01&amp;GRAD_COHORT=2001&amp;key=YOUR_KEY_GOES_HERE</a>	1
		<a href="https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&amp;for=us:1&amp;DEGREE_LEVEL=05&amp;CIPCODE=11.01&amp;GRAD_COHORT=2001&amp;key=YOUR_KEY_GOES_HERE">https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&amp;for=us:1&amp;DEGREE_LEVEL=05&amp;CIPCODE=11.01&amp;GRAD_COHORT=2001&amp;key=YOUR_KEY_GOES_HERE</a>	2
<i>2 examples</i>			

- **&for=nation:01** gets data for the U.S.

Choose the nation example

<https://api.census.gov/data/timeseries/pseo/earnings/examples.html>

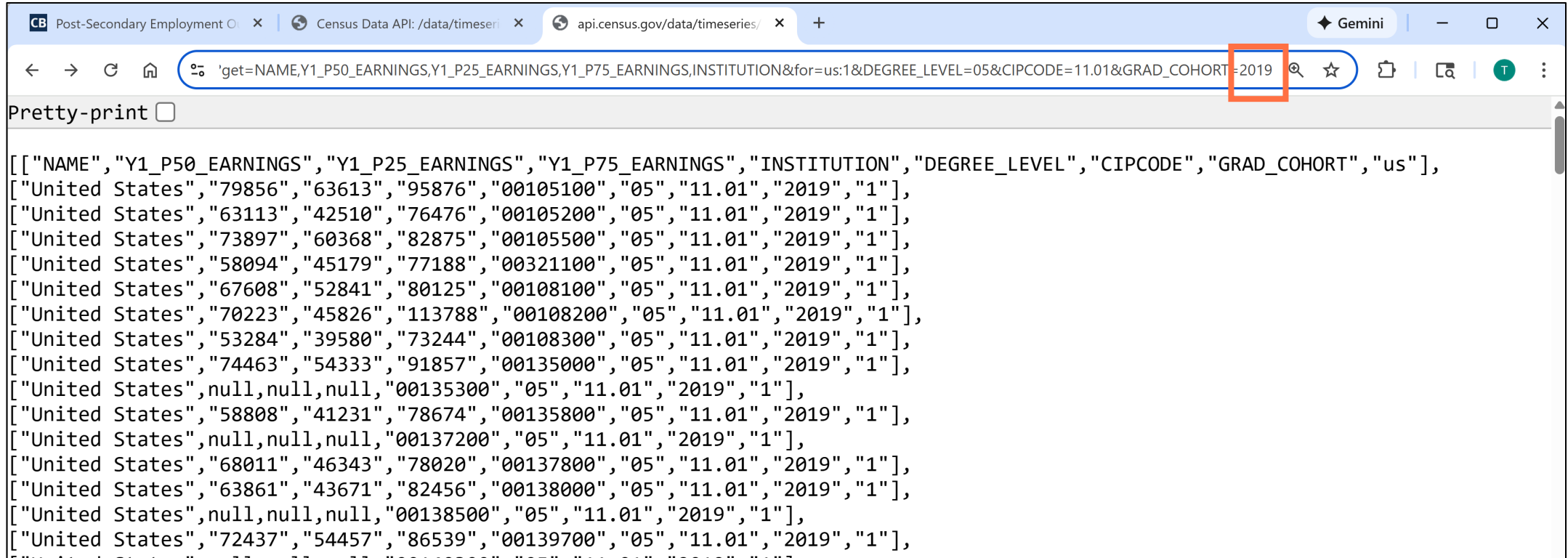
- Enter Your API Key Or Delete “&key=YOUR\_KEY\_GOES\_HERE”
- Press Enter And View Results



```
[["NAME", "Y1_P50_EARNINGS", "Y1_P25_EARNINGS", "Y1_P75_EARNINGS", "INSTITUTION", "DEGREE_LEVEL", "CIPCODE", "GRAD_COHORT", "us"],  
["United States", "54051", "38181", "74301", "00105100", "05", "11.01", "2001", "1"],  
["United States", null, null, null, "00108100", "05", "11.01", "2001", "1"],  
["United States", null, null, null, "00108200", "05", "11.01", "2001", "1"],  
["United States", "66665", "46154", "82649", "00372100", "05", "11.01", "2001", "1"],  
["United States", "68702", "47631", "93989", "00135000", "05", "11.01", "2001", "1"],  
["United States", "43047", "28103", "80258", "00135300", "05", "11.01", "2001", "1"],  
["United States", "50539", "28680", "76330", "00135800", "05", "11.01", "2001", "1"],  
["United States", "46532", "37341", "66619", "00136500", "05", "11.01", "2001", "1"],  
["United States", "81043", "62075", "99629", "00137000", "05", "11.01", "2001", "1"],
```

[https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1\\_P50\\_EARNINGS,Y1\\_P25\\_EARNINGS,Y1\\_P75\\_EARNINGS,INSTITUTION&for=us:1&DEGREE\\_LEVEL=05&CIPCODE=11.01&GRAD\\_COHORT=2001](https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&for=us:1&DEGREE_LEVEL=05&CIPCODE=11.01&GRAD_COHORT=2001)

- **Edit Year To Retrieve Data for 2019 Cohort** – In this example, replace the cohort year 2001 with **2019**



The screenshot shows a web browser window with the URL `https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&for=us:1&DEGREE_LEVEL=05&CIPCODE=11.01&GRAD_COHORT=2019`. The value `2019` in the URL is highlighted with a red box. The page content shows a JSON array of data for the year 2019, with the first few rows as follows:

```
[["NAME", "Y1_P50_EARNINGS", "Y1_P25_EARNINGS", "Y1_P75_EARNINGS", "INSTITUTION", "DEGREE_LEVEL", "CIPCODE", "GRAD_COHORT", "us"],  
["United States", "79856", "63613", "95876", "00105100", "05", "11.01", "2019", "1"],  
["United States", "63113", "42510", "76476", "00105200", "05", "11.01", "2019", "1"],  
["United States", "73897", "60368", "82875", "00105500", "05", "11.01", "2019", "1"],  
["United States", "58094", "45179", "77188", "00321100", "05", "11.01", "2019", "1"],  
["United States", "67608", "52841", "80125", "00108100", "05", "11.01", "2019", "1"],  
["United States", "70223", "45826", "113788", "00108200", "05", "11.01", "2019", "1"],  
["United States", "53284", "39580", "73244", "00108300", "05", "11.01", "2019", "1"],  
["United States", "74463", "54333", "91857", "00135000", "05", "11.01", "2019", "1"],  
["United States", null, null, null, "00135300", "05", "11.01", "2019", "1"],  
["United States", "58808", "41231", "78674", "00135800", "05", "11.01", "2019", "1"],  
["United States", null, null, null, "00137200", "05", "11.01", "2019", "1"],  
["United States", "68011", "46343", "78020", "00137800", "05", "11.01", "2019", "1"],  
["United States", "63861", "43671", "82456", "00138000", "05", "11.01", "2019", "1"],  
["United States", null, null, null, "00138500", "05", "11.01", "2019", "1"],  
["United States", "72437", "54457", "86539", "00139700", "05", "11.01", "2019", "1"],  
["United States", null, null, null, "00140000", "05", "11.01", "2019", "1"]]
```

[https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1\\_P50\\_EARNINGS,Y1\\_P25\\_EARNINGS,Y1\\_P75\\_EARNINGS,INSTITUTION&for=us:1&DEGREE\\_LEVEL=05&CIPCODE=11.01&GRAD\\_COHORT=2019](https://api.census.gov/data/timeseries/pseo/earnings?get=NAME,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&for=us:1&DEGREE_LEVEL=05&CIPCODE=11.01&GRAD_COHORT=2019)

- Find Your Variables: Click the **variables** link for the “PSEO - Earnings” dataset in the Discovery Tool

*Census API: Datasets in /data/timeseries/pseo/earnings and its descendants*

Title	Description	Vintage	Dataset Name	Dataset Type	Geography List	Variable List	Group List	SortList	Examples	Developer Documentation	API Base URL
Post-Secondary Employment Outcomes (PSEO) - Earnings	Post-Secondary Employment Outcomes (PSEO) are experimental tabulations developed by researchers at the U.S. Census Bureau. PSEO data provide earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution. These statistics are generated by matching university transcript data with a national database of jobs, using state-of-the-art confidentiality protection mechanisms to protect the underlying data. The Earnings endpoint provides access to graduate earnings at the 25th, 50th, and 75th percentiles, one, five, and 10 years after graduation, by institution, degree level, degree field, and graduation cohort. PSEO data will be updated as new cells are able to be published.	N/A	timeseries>pseo>earnings	N/A	<a href="#">geographies</a>	<a href="#">variables</a>	<a href="#">groups</a>	<a href="#">sorts</a>	<a href="#">examples</a>	<a href="#">documentation</a>	<a href="http://api.census.gov/data/timeseries/pseo/earnings">http://api.census.gov/data/timeseries/pseo/earnings</a>
<i>1 dataset</i>											

- Find Variable Labels: LABEL\_CIPCODE, LABEL\_DEGREE\_LEVEL, and LABEL\_INSTITUTION. Variables are case-sensitive.

Name	Label	Concept	Required	Attributes	Limit	Predicate Type	Group
<a href="#">AGG_LEVEL_PSEO</a>	Aggregation Level	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">LABEL_AGG_LEVEL_PSEO</a>	0	int	<a href="#">PSEOEARNINGS</a>
<a href="#">CIP_LEVEL</a>	CIP Code Level	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">LABEL_CIP_LEVEL</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">CIPCODE</a>	CIP Code	Post-Secondary Employment Outcomes (PSEO) Earnings	default displayed	<a href="#">LABEL_CIPCODE</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">DEGREE_LEVEL</a>	Degree Level	Post-Secondary Employment Outcomes (PSEO) Earnings	default displayed	<a href="#">LABEL_DEGREE_LEVEL</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">for</a>	Census API FIPS 'for' clause	Census API Geography Specification	predicate-only		0	fips-for	N/A
<a href="#">GEO_ID</a>	Geographic Identifier Code	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">NAME</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">GEOCOMP</a>	GEO_ID Component		default displayed		0	string	N/A
<a href="#">GRAD_COHORT</a>	First Year of Graduation Cohort	Post-Secondary Employment Outcomes (PSEO) Earnings	default displayed	<a href="#">LABEL_GRAD_COHORT</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">GRAD_COHORT_YEARS</a>	Number of Graduation Cohort Years	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">LABEL_GRAD_COHORT_YEARS</a>	0	int	<a href="#">PSEOEARNINGS</a>
<a href="#">in</a>	Census API FIPS 'in' clause	Census API Geography Specification	predicate-only		0	fips-in	N/A
<a href="#">INST_LEVEL</a>	Institution Level	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">LABEL_INST_LEVEL</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">INST_STATE</a>	FIPS Code of State of the Institution	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">LABEL_INST_STATE</a>	0	string	<a href="#">PSEOEARNINGS</a>
<a href="#">INSTITUTION</a>	Institution	Post-Secondary Employment Outcomes (PSEO) Earnings	not required	<a href="#">LABEL_INSTITUTION</a>	0	string	<a href="#">PSEOEARNINGS</a>

- **Update Query With Variable Labels:** Replace NAME with LABEL\_INSTITUTION,LABEL\_DEGREE\_LEVEL,LABEL\_CIPCODE
- **Press enter**
- **View Results** – Labels provide context for what the data represents

```

api.census.gov/data/timeseries/pseo/earnings?get=LABEL_INSTITUTION,LABEL_DEGREE_LEVEL,LABEL_CIPCODE,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION,DEGREE_LEVEL,CIPCODE,GRAD_COHORT,us
["University of Alabama","Baccalaureate","Computer and Information Sciences, General",79856,"63613","95876","00105100","05","11.01","2019","1"],
["University of Alabama at Birmingham","Baccalaureate","Computer and Information Sciences, General",63113,"42510","76476","00105200","05","11.01","2019","1"],
["University of Alabama in Huntsville","Baccalaureate","Computer and Information Sciences, General",73897,"60368","82875","00105500","05","11.01","2019","1"],
["Arizona State University","Baccalaureate","Computer and Information Sciences, General",67608,"52841","80125","00108100","05","11.01","2019","1"],
["Northern Arizona University","Baccalaureate","Computer and Information Sciences, General",70223,"45826","113788","00108200","05","11.01","2019","1"],
["University of Arizona (The)","Baccalaureate","Computer and Information Sciences, General",53284,"39580","73244","00108300","05","11.01","2019","1"],
["Colorado State University","Baccalaureate","Computer and Information Sciences, General",74463,"54333","91857","00135000","05","11.01","2019","1"],
["Fort Lewis College","Baccalaureate","Computer and Information Sciences, General",null,null,null,"00135300","05","11.01","2019","1"],
["Colorado Mesa University","Baccalaureate","Computer and Information Sciences, General",58808,"41231","78674","00135800","05","11.01","2019","1"],
["Western Colorado University","Baccalaureate","Computer and Information Sciences, General",null,null,null,"00137200","05","11.01","2019","1"],
["Central Connecticut State University","Baccalaureate","Computer and Information Sciences, General",68011,"46343","78020","00137800","05","11.01","2019","1"],
["Western Connecticut State University","Baccalaureate","Computer and Information Sciences, General",63861,"43671","82456","00138000","05","11.01","2019","1"],
["Fairfield University","Baccalaureate","Computer and Information Sciences, General",null,null,null,"00138500","05","11.01","2019","1"],
["University of New Haven","Baccalaureate","Computer and Information Sciences, General",72437,"54457","86539","00139700","05","11.01","2019","1"],
["Sacred Heart University","Baccalaureate","Computer and Information Sciences, General",null,null,null,"00140300","05","11.01","2019","1"],
["Southern Connecticut State University","Baccalaureate","Computer and Information Sciences, General",55721,"35311","73301","00140600","05","11.01","2019","1"],
["University of Hartford","Baccalaureate","Computer and Information Sciences, General",59370,"32235","74516","00142200","05","11.01","2019","1"],
["Eastern Connecticut State University","Baccalaureate","Computer and Information Sciences, General",64860,"39041","81053","00142500","05","11.01","2019","1"],
["University of the District of Columbia","Baccalaureate","Computer and Information Sciences, General",null,null,null,"00144100","05","11.01","2019","1"],

```

[https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL\\_INSTITUTION,LABEL\\_DEGREE\\_LEVEL,LABEL\\_CIPCODE,Y1\\_P50\\_EARNINGS,Y1\\_P25\\_EARNINGS,Y1\\_P75\\_EARNINGS,INSTITUTION&for=us:1&DEGREE\\_LEVEL=05&CIPCODE=11.01&GRAD\\_COHORT=2019](https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL_INSTITUTION,LABEL_DEGREE_LEVEL,LABEL_CIPCODE,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&for=us:1&DEGREE_LEVEL=05&CIPCODE=11.01&GRAD_COHORT=2019)

- Remove parameter **&CIPCODE=11.01** from the query
- **Press enter**
- **View Results** – Data are aggregated for “All Instructional Programs” instead of limiting the results for Computer and Informational Sciences majors.

api.census.gov/data/timeseries/...&CIPCODE=11.01&GRAD\_COHORT=2019

```
[["LABEL_INSTITUTION","LABEL_DEGREE_LEVEL","LABEL_CIPCODE","Y1_P50_EARNINGS","Y1_P25_EARNINGS","Y1_P75_EARNINGS","INSTITUTION","DEGREE_LEVEL","GRAD_COHORT","us"],
["University of Alabama","Baccalaureate","All Instructional Programs", "48323", "32818", "67709", "00105100", "05", "2019", "1"],
["University of Alabama at Birmingham", "Baccalaureate", "All Instructional Programs", "43918", "29462", "62059", "00105200", "05", "2019", "1"],
["University of Alabama in Huntsville", "Baccalaureate", "All Instructional Programs", "56147", "38151", "74183", "00105500", "05", "2019", "1"],
["Arizona State University", "Baccalaureate", "All Instructional Programs", "47272", "32794", "66651", "00108100", "05", "2019", "1"],
["Northern Arizona University", "Baccalaureate", "All Instructional Programs", "43783", "30718", "59639", "00108200", "05", "2019", "1"],
["University of Arizona (The)", "Baccalaureate", "All Instructional Programs", "43814", "29828", "62878", "00108300", "05", "2019", "1"],
["Adams State University", "Baccalaureate", "All Instructional Programs", "38645", "26751", "50816", "00134500", "05", "2019", "1"],
["Arapahoe Community College", "Baccalaureate", "All Instructional Programs", null, null, null, "00134600", "05", "2019", "1"],
["Colorado School of Mines", "Baccalaureate", "All Instructional Programs", "70555", "52041", "85389", "00134800", "05", "2019", "1"],
["University of Northern Colorado", "Baccalaureate", "All Instructional Programs", "39108", "27779", "51418", "00134900", "05", "2019", "1"],
["Colorado State University", "Baccalaureate", "All Instructional Programs", "41194", "28353", "58799", "00135000", "05", "2019", "1"],
["Fort Lewis College", "Baccalaureate", "All Instructional Programs", "31453", "23056", "42419", "00135300", "05", "2019", "1"],
["Colorado Mesa University", "Baccalaureate", "All Instructional Programs", "41535", "28878", "58915", "00135800", "05", "2019", "1"],
["Metropolitan State University of Denver", "Baccalaureate", "All Instructional Programs", "43912", "31197", "59323", "00136000", "05", "2019", "1"],
["Colorado State University-Pueblo", "Baccalaureate", "All Instructional Programs", "41953", "29344", "60942", "00136500", "05", "2019", "1"],
```

[https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL\\_INSTITUTION,LABEL\\_DEGREE\\_LEVEL,LABEL\\_CIPCODE,Y1\\_P50\\_EARNINGS,Y1\\_P25\\_EARNINGS,Y1\\_P75\\_EARNINGS,INSTITUTION&for=us:1&DEGREE\\_LEVEL=05&GRAD\\_COHORT=2019](https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL_INSTITUTION,LABEL_DEGREE_LEVEL,LABEL_CIPCODE,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION&for=us:1&DEGREE_LEVEL=05&GRAD_COHORT=2019)

- **Update Query With Variable:** Add ,CIPCODE to the variable list
- **Press enter**
- **View Results** – Query provides results for all available (detailed) majors

```

Pretty-print 
[["Institutions in Wisconsin","Baccalaureate","All Instructional Programs",44687,31399,60859,55,00,05,2019,1],
["Institutions in Wyoming","Baccalaureate","All Instructional Programs",42925,28911,57841,56,00,05,2019,1],
["Institutions in Alabama","Baccalaureate","Natural Resources and Conservation",31193,20178,40811,01,03,05,2019,1],
["Institutions in Alabama","Baccalaureate","Area, Ethnic, Cultural, Gender, and Group Studies",35962,24719,49524,01,05,05,2019,1],
["Institutions in Alabama","Baccalaureate","Communication, Journalism, and Related Programs",39052,28292,49940,01,09,05,2019,1],
["Institutions in Alabama","Baccalaureate","Computer and Information Sciences and Support Services",73520,57468,85988,01,11,05,2019,1],
["Institutions in Alabama","Baccalaureate","Education",39276,26540,46914,01,13,05,2019,1],
["Institutions in Alabama","Baccalaureate","Engineering",70091,55804,81867,01,14,05,2019,1],
["Institutions in Alabama","Baccalaureate","Foreign Languages, Literatures, and Linguistics",39121,24825,54809,01,16,05,2019,1],
["Institutions in Alabama","Baccalaureate","Family and Consumer Sciences/Human Sciences",37188,26487,50086,01,19,05,2019,1],
["Institutions in Alabama","Baccalaureate","English Language and Literature/Letters",35528,25619,47177,01,23,05,2019,1],
["Institutions in Alabama","Baccalaureate","Liberal Arts and Sciences, General Studies and Humanities",38270,27906,51250,01,24,05,2019,1],
["Institutions in Alabama","Baccalaureate","Biological and Biomedical Sciences",29760,21835,40118,01,26,05,2019,1],
["Institutions in Alabama","Baccalaureate","Mathematics and Statistics",49524,33740,72704,01,27,05,2019,1],
["Institutions in Alabama","Baccalaureate","Multi/Interdisciplinary Studies",54633,36651,84946,01,30,05,2019,1],
["Institutions in Alabama","Baccalaureate","Parks, Recreation, Leisure, Fitness, and Kinesiology",30352,21573,37586,01,31,05,2019,1],
["Institutions in Alabama","Baccalaureate","Philosophy and Religious Studies",26970,17980,37695,01,38,05,2019,1],
["Institutions in Alabama","Baccalaureate","Physical Sciences",40437,27854,54347,01,40,05,2019,1],
["Institutions in Alabama","Baccalaureate","Psychology",31541,22120,41338,01,42,05,2019,1],
["Institutions in Alabama","Baccalaureate","Public Administration and Social Service Professions",30321,22564,39294,01,44,05,2019,1],

```

[https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL\\_INSTITUTION,LABEL\\_DEGREE\\_LEVEL,LABEL\\_CIPCODE,Y1\\_P50\\_EARNINGS,Y1\\_P25\\_EARNINGS,Y1\\_P75\\_EARNINGS,INSTITUTION,CIPCODE&for=us:1&DEGREE\\_LEVEL=05&GRAD\\_COHORT=2019](https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL_INSTITUTION,LABEL_DEGREE_LEVEL,LABEL_CIPCODE,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION,CIPCODE&for=us:1&DEGREE_LEVEL=05&GRAD_COHORT=2019)

- **Restrict Results for ID & NC:** Add **&INST\_STATE=16&INST\_STATE=37** to the URL
- **Press enter**
- **View Results** – Query provides results for institutions in Idaho and North Carolina

```

[[{"LABEL_INSTITUTION", "LABEL_DEGREE_LEVEL", "LABEL_CIPCODE", "Y1_P50_EARNINGS", "Y1_P25_EARNINGS", "Y1_P75_EARNINGS", "INSTITUTION", "CIPCODE", "DEGREE_LEVEL", "GRAD_COHORT", "INST_STATE", "us"},
{"Institutions in Idaho", "Baccalaureate", "All Instructional Programs", "43335", "28891", "61164", "16", "00", "05", "2019", "16", "1"},
{"Institutions in North Carolina", "Baccalaureate", "All Instructional Programs", "45143", "30677", "64797", "37", "00", "05", "2019", "37", "1"},
{"Institutions in Idaho", "Baccalaureate", "Engineering", "68619", "56011", "79894", "16", "14", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Agricultural/Animal/Plant/Veterinary Science and Related Fields", "40037", "28546", "56700", "16", "01", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Natural Resources and Conservation", "35872", "24781", "48715", "16", "03", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Communication, Journalism, and Related Programs", "39087", "29135", "51223", "16", "09", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Computer and Information Sciences and Support Services", "67922", "49411", "84248", "16", "11", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Education", "42318", "28820", "50530", "16", "13", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Engineering/Engineering-Related Technologies/Technicians", "67307", "52354", "81043", "16", "15", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "Family and Consumer Sciences/Human Sciences", "30137", "22640", "37389", "16", "19", "05", "2019", "16", "1"},
{"Institutions in Idaho", "Baccalaureate", "English Language and Literature/Letters", "28969", "23168", "42092", "16", "23", "05", "2019", "16", "1"}]]

```

[https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL\\_INSTITUTION,INSTITUTION,CIPCODE&for=us:1&DEGREE\\_LEVEL=05&GRAD\\_COHORT=2019&INST\\_STATE=16&INST\\_STATE=37](https://api.census.gov/data/timeseries/pseo/earnings?get=LABEL_INSTITUTION,INSTITUTION,CIPCODE&for=us:1&DEGREE_LEVEL=05&GRAD_COHORT=2019&INST_STATE=16&INST_STATE=37)

# Identifying Categorical Variables in PSEO API

Reference the 'Predicate Type' column in the variables list of the API Discovery Tool. Most 'string' variables in the PSEO dataset are categorical variables.

Name	Label	Concept	Required	Attributes	Limit	Predicate Type	Group
<a href="#">AGG_LEVEL_PSEO</a>	Aggregation Level	Post-Secondary Employment Outcomes (PSEO) Flows	not required	<a href="#">LABEL_AGG_LEVEL_PSEO</a>	0	int	<a href="#">PSEOFLOWS</a>
<a href="#">CIP_LEVEL</a>	CIP Code Level	Post-Secondary Employment Outcomes (PSEO) Flows	not required	<a href="#">LABEL_CIP_LEVEL</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">CIPCODE</a>	CIP Code	Post-Secondary Employment Outcomes (PSEO) Flows	default displayed	<a href="#">LABEL_CIPCODE</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">DEGREE_LEVEL</a>	Degree Level	Post-Secondary Employment Outcomes (PSEO) Flows	default displayed	<a href="#">LABEL_DEGREE_LEVEL</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">DIVISION</a>	Division		not required		0	<i>(not a predicate)</i>	N/A
<a href="#">for</a>	Census API FIPS 'for' clause	Census API Geography Specification	predicate-only		0	fips-for	N/A
<a href="#">GEO_ID</a>	Geographic Identifier Code	Post-Secondary Employment Outcomes (PSEO) Flows	not required	<a href="#">NAME</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">GEOCOMP</a>	GEO_ID Component		default displayed		0	string	N/A
<a href="#">GRAD_COHORT</a>	First Year of Graduation Cohort	Post-Secondary Employment Outcomes (PSEO) Flows	default displayed	<a href="#">LABEL_GRAD_COHORT</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">GRAD_COHORT_YEARS</a>	Number of Graduation Cohort Years	Post-Secondary Employment Outcomes (PSEO) Flows	not required	<a href="#">LABEL_GRAD_COHORT_YEARS</a>	0	int	<a href="#">PSEOFLOWS</a>
<a href="#">in</a>	Census API FIPS 'in' clause	Census API Geography Specification	predicate-only		0	fips-in	N/A

# Understanding Categorical Variables in PSEO API

View the PSEO Developers page to find the meaning of categorical variable values

## Outline of Documentation

- Two PSEO Endpoints – Earnings and Flows
- Parameters/Variables in a PSEO API Call
  - Basic Settings
  - Indicators
  - Geography
  - Institution
  - State of the Institution
  - Institution Level
  - Degree Level
  - CIP Level
  - CIP Code
  - Industry/NAICS
  - Graduation Cohort
  - Graduation Cohort Years
- Advanced Queries
- Notes/Data Limitations
- data.census.gov Tables
- Related Information

## Institution

### Earnings:

[api.census.gov/data/timeseries/pseo/earnings?  
get=Y1\\_P50\\_EARNINGS&for=us:1&INSTITUTION=00365800&INST\\_STATE=48&INST\\_LEVEL=I&DEGREE\\_LEVEL=05&CIP\\_LEVEL=2&CIPCODE=11&GRAD\\_COHORT=2001&GRAD\\_COHORT\\_YEARS=3&key=YOUR\\_KEY\\_GOES\\_HERE](https://api.census.gov/data/timeseries/pseo/earnings?get=Y1_P50_EARNINGS&for=us:1&INSTITUTION=00365800&INST_STATE=48&INST_LEVEL=I&DEGREE_LEVEL=05&CIP_LEVEL=2&CIPCODE=11&GRAD_COHORT=2001&GRAD_COHORT_YEARS=3&key=YOUR_KEY_GOES_HERE)

### Flows:

[api.census.gov/data/timeseries/pseo/flows?  
get=Y1\\_GRADS\\_EMP&for=division:9&INSTITUTION=00365800&INST\\_STATE=48&INST\\_LEVEL=I&DEGREE\\_LEVEL=05&CIP\\_LEVEL=2&CIPCODE=11&NAICS=54&GRAD\\_COHORT=2001&GRAD\\_COHORT\\_YEARS=3&key=YOUR\\_KEY\\_GOES\\_HERE](https://api.census.gov/data/timeseries/pseo/flows?get=Y1_GRADS_EMP&for=division:9&INSTITUTION=00365800&INST_STATE=48&INST_LEVEL=I&DEGREE_LEVEL=05&CIP_LEVEL=2&CIPCODE=11&NAICS=54&GRAD_COHORT=2001&GRAD_COHORT_YEARS=3&key=YOUR_KEY_GOES_HERE)

- Select desired Institution (OPEID) codes as a “predicate”.
- Institution codes are required to be eight characters long, with the last two digits representing sub-institution codes. As you can see in the above example, the University of Texas –Austin code is six digits with no sub-institution codes, so is represented as “00365800”.
- View all [INSTITUTION codes](#) [TXT <1.0 MB]
- View [INSTITUTION codes](#) [TXT <1.0 MB] for which PSEO has published data.

	A	B	C	D	E
1	institution	label	institution_statefips		
143	00181600	Indiana University - South Bend	IN		18
144	00181700	Indiana University Southeast	IN		18
145	00182000	Manchester University	IN		18
146	00182200	Indiana Wesleyan University	IN		18
147	00182500	Purdue University	IN		18
148	00182600	Purdue University - North Central	IN		18
149	00182700	Purdue University Northwest	IN		18
150	00182800	Purdue University Fort Wayne	IN		18
151	00183000	Rose-Hulman Institute of Technology	IN		18
152	00183200	University of Saint Francis	IN		18
153	00183500	Saint Mary of the Woods College	IN		18

# Attributes in PSEO

Attributes provide additional details for the corresponding variable (Labels and status flags for PSEO)

Name	Label	Concept	Required	Attributes	Limit	Predicate Type	Group
<a href="#">AGG_LEVEL_PSEO</a>	Aggregation Level	Post-Secondary Employment Outcomes (PSEO) Flows	not required	<a href="#">LABEL_AGG_LEVEL_PSEO</a>	0	int	<a href="#">PSEOFLOWS</a>
<a href="#">CIP_LEVEL</a>	CIP Code Level	Post-Secondary Employment Outcomes (PSEO) Flows	not required	<a href="#">LABEL_CIP_LEVEL</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">CIPCODE</a>	CIP Code	Post-Secondary Employment Outcomes (PSEO) Flows	default displayed	<a href="#">LABEL_CIPCODE</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">DEGREE_LEVEL</a>	Degree Level	Post-Secondary Employment Outcomes (PSEO) Flows	default displayed	<a href="#">LABEL_DEGREE_LEVEL</a>	0	string	<a href="#">PSEOFLOWS</a>
<a href="#">DIVISION</a>	Division		not required		0	(not a predicate)	N/A
<a href="#">CENSUS_API_GEOGRAPHY</a>	Census API Geography	Census API Geography	predicate-		0		N/A

Add labels to API query for readability

```

https://api.census.gov/data/timeseries/VE/LABEL_CIPCODE,Y1_P50_EARNINGS,Y1_P25_EARNINGS,Y1_P75_EARNINGS,INSTITUTION,CIPCODE?for=us:1&DEGREE_LEVEL=05&GRAD_COHORT=2019
["Institutions in Wisconsin","Baccalaureate","All Instructional Programs", "44687", "31399", "60859", "55", "00", "05", "2019", "1"],
["Institutions in Wyoming","Baccalaureate","All Instructional Programs", "42925", "28911", "57841", "56", "00", "05", "2019", "1"],
["Institutions in Alabama","Baccalaureate","Natural Resources and Conservation", "31193", "20178", "40811", "01", "03", "05", "2019", "1"],
["Institutions in Alabama","Baccalaureate","Area, Ethnic, Cultural, Gender, and Group Studies", "35962", "24719", "49524", "01", "05", "05", "2019", "1"],
["Institutions in Alabama","Baccalaureate","Communication, Journalism, and Related Programs", "39052", "28292", "49940", "01", "09", "05", "2019", "1"],
["Institutions in Alabama","Baccalaureate","Computer and Information Sciences and Support Services", "73520", "57468", "85988", "01", "11", "05", "2019", "1"],
["Institutions in Alabama","Baccalaureate","Education", "39276", "26540", "46914", "01", "13", "05", "2019", "1"],
["Institutions in Alabama","Baccalaureate","Engineering", "70091", "55804", "81867", "01", "14", "05", "2019", "1"],
  
```