

FedScope Employment Cube

December 2021

Raw Data Set

Prepared for: <u>Data.gov</u>

FedScope Employment Cube (December 2021)

Raw Data Set (<u>https://www.opm.gov/data/</u>)



Table of Contents

1	OVE	ERVIEW	3
	1.1	Purpose	
	1.2		3
2	RAV	V DATA SET FILE	3 3 3 3
	2.1	FACTDATA	3
3	DIM	IENSION TRANSLATIONS FILES	
	3.1	Agency	5 5
		Location	6
	3.3	Age	6
		Education Level	7
	3.5	General Schedule & Equivalent Grade	8
	3.6	Length of Service	8
	3.7	Occupation	9
	3.8	Occupation Category	9
	3.9	Pay Plan & Grade	10
	3.10	Salary Level	10
	3.11	STEM Occupations	11
	3.12	Supervisory Status	11
	3.13	Type of Appointment	12
	3.14	Work Schedule	12
	3.15	Work Status	13
	3.16	Date	13
	3.17	Employment	14
	3.18	Average Salary	14
	3.19	Average Length of Service	14
4	DAT	TA DEFINITIONS	15
	4.1	Agency	15
	4.2	Location	15
	4.3	Age	15
	4.4	Education Level	15
	4.5	General Schedule & Equivalent Grade	15
	4.6	Length of Service	15
	4.7	Occupation	15
	4.8	Occupation Category	15
	4.9	Pay Plan & Grade	16
	4.10	Salary Level	16
	4.11	STEM Occupations	16
	4.12	Supervisory Status	16
		Type of Appointment	16
	4.14	Work Schedule	16

Source: FedScope (<u>https://www.fedscope.opm.gov/</u>)

FedSco	ope Employment Cube (December 2021)	OUTED STATES
Raw Da	ata Set (https://www.opm.gov/data/)	E DERSONNEL HIT
4.15	Work Status	16
4.16	Date	16
4.17	Employment	17
4.18	Average Salary	17
4.19	Average Length of Service	17
5 APF	PENDIX	18
5.1	SAS Program to Read Raw Data Sets for Data Analysis	18
5.2	FedScope General Public Web Site	18

Listing of Tables

Table 2.1: FACTDATA.TXT Record Layout	4
Table 3.1: DTagy.txt Record Layout	5
Table 3.2: DTloc.txt Record Layout	6
Table 3.3: DTagelvl.txt Record Layout	6
Table 3.4: DTedlvl.txt Record Layout	7
Table 3.5: DTgsegrd.txt Record Layout	8
Table 3.6: DTloslvl.txt Record Layout	8
Table 3.7: DTocc.txt Record Layout	9
Table 3.8: DTpatco.txt Record Layout	9
Table 3.9: DTppgrd.txt Record Layout	10
Table 3.10: DTsallvl.txt Record Layout	10
Table 3.11: DTstemocc.txt Record Layout	11
Table 3.12: DTsuper.txt Record Layout	11
Table 3.13: DTtoa.txt Record Layout	12
Table 3.14: DTwrksch.txt Record Layout	12
Table 3.15: DTwkstat.txt Record Layout	13
Table 3.16: DTdate.txt Record Layout	13



1 OVERVIEW

1.1 Purpose

The purpose of this raw data set is to increase public access to high value, machine readable datasets generated by the U.S. Office of Personnel Management. The FedScope Employment Cube data sets are available via https://www.opm.gov/data/.

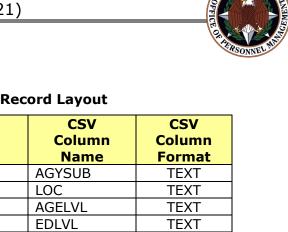
1.2 Scope

The scope of this raw data set includes data elements used in the creation of the FedScope Employment Cube (<u>https://www.fedscope.opm.gov/</u>). **NOTE**: Starting in FY 2010, the OPM Statistical Data Mart (SDM) is the source for all FedScope data. The SDM is processed data from the Enterprise Human Resources Integration (EHRI) data warehouse. Data is processed on a quarterly basis (i.e. March, June, September and December).

2 RAW DATA SET FILE

2.1 FACTDATA

This "**delimited**" (comma separated value (**CSV**)) raw data set provides employee population data as of December 2021. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 20 data elements. The record layout for FACTDATA.TXT is depicted in <u>Table 2.1</u> below:



Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Agency	AGYSUB	TEXT
2	Location	LOC	TEXT
3	Age	AGELVL	TEXT
4	Education Level	EDLVL	TEXT
5	General Schedule & Equivalent Grade	GSEGRD	TEXT
6	Length of Service	LOSLVL	TEXT
7	Occupation	OCC	TEXT
8	Occupation Category	PATCO	TEXT
9	Pay Plan & Grade	PPGRD	TEXT
10	Salary Level	SALLVL	TEXT
11	STEM Occupations	STEMOCC	TEXT
12	Supervisory Status	SUPERVIS	TEXT
13	Type of Appointment	TOA	TEXT
14	Work Schedule	WORKSCH	TEXT
15	Work Status	WORKSTAT	TEXT
16	Date (e.g. 202112)	DATECODE	TEXT
17	Employment	EMPLOYMENT	NUMERIC
18	Average Salary	SALARY	NUMERIC
19	Average Length of Service	LOS	NUMERIC
	Total Records: 2,	,170,157	

Table 2.1: FACTDATA.TXT Record Layout

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-17 from "General" to "Text". Columns 18-20 can be imported as "General" data format. In Excel, the "General" data format converts numeric values to numbers. Columns 1-17 are TEXT fields; Columns 18-20 are NUMERIC fields.



3 DIMENSION TRANSLATIONS FILES

3.1 Agency

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the agency data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 6 data elements. The record layout for DTagy.txt is depicted in <u>Table 3.1</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format	
1	Agency Type	AGYTYP	TEXT	
2	Agency Type Translation	AGYTYPT	TEXT	
3	Agency	AGY	TEXT	
4	Agency Translation	AGYT	TEXT	
5	Agency Sub element	AGYSUB	TEXT	
6	Agency Sub element Translation	AGYSUBT	TEXT	
	Total Records: 537			

Table 3.1: DTagy.txt Record Layout

3.2 Location

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the location data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 4 data elements. The record layout for DTloc.txt is depicted in <u>Table 3.2</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format	
1	Location Type	LOCTYP	TEXT	
2	Location Type Translation	LOCTYPT	TEXT	
3	State/Country	LOC	TEXT	
4	State/Country Translation	LOCT	TEXT	
Total Records: 226				

Table 3.2: DTloc.txt Record Layout

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-4 from "General" to "Text".

3.3 Age

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the age data element contained in the employee population data file (FACTDATA.TXT). See <u>Table</u> <u>2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 2 data elements. The record layout for DTagelvl.txt is depicted in <u>Table 3.3</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Age	AGELVL	TEXT
2	Age Translation	AGELVLT	TEXT
Total Records: 12			

Table 3.3: DTagelvl.txt Record Layout



3.4 Education Level

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the education level data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 4 data elements. The record layout for DTedlvl.txt is depicted in <u>Table 3.4</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format		
1	Education Level Type	EDLVLTYP	TEXT		
2	Education Level Type Translation	EDLVLTYPT	TEXT		
3	Education Level	EDLVL	TEXT		
4	Education Level Translation	EDLVLT	TEXT		
	Total Records: 24				

Table 3.4: DTedlvl.txt Record Layout

3.5 General Schedule & Equivalent Grade

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the general schedule & equivalent grade data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 1 data element. The record layout for DTgsegrd.txt is depicted in <u>Table 3.5</u> below:

Table 3.5: DTgsegrd.txt Record Layout

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format	
1	General Schedule & Equivalent Grade	GSEGRD	TEXT	
	Total Records: 17			

NOTE: If importing this table (data set) into Excel, change the "column data format" for column 1-from "General" to "Text".

3.6 Length of Service

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the length of service data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 2 data elements. The record layout for DTloslvI.txt is depicted in <u>Table 3.6</u> below:

Table 3.6: DTloslvl.txt Record Layout

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Length of Service	LOSLVL	TEXT
2	Length of Service Translation	LOSLVLT	TEXT
Total Records: 11			



3.7 Occupation

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the occupation data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 6 data elements. The record layout for DTocc.txt is depicted in <u>Table 3.7</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format	
1	Occupation Type	OCCTYP	TEXT	
2	Occupation Type Translation	OCCTYPT	TEXT	
3	Occupation Family	OCCFAM	TEXT	
4	Occupation Family Translation	OCCFAMT	TEXT	
5	Occupation	OCC	TEXT	
6	Occupation Translation	OCCT	TEXT	
	Total Records: 668			

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-6 from "General" to "Text".

3.8 Occupation Category

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the occupation category data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 2 data elements. The record layout for DTpatco.txt is depicted in <u>Table 3.8</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Occupation Category	PATCO	TEXT
2	Occupation Category Translation	PATCOT	TEXT
Total Records: 7			

Table 3.8: DTpatco.txt Record Layout



3.9 Pay Plan & Grade

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the pay plan & grade data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 7 data elements. The record layout for DTppgrd.txt is depicted in <u>Table 3.9</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format	
1	Pay Plan Type	PPTYP	TEXT	
2	Pay Plan Type Translation	PPTYPT	TEXT	
3	Pay Plan Group	PPGROUP	TEXT	
4	Pay Plan Group Translation	PPGROUPT	TEXT	
5	Pay Plan	PAYPLAN	TEXT	
6	Pay Plan Translation	PAYPLANT	TEXT	
7	Pay Plan & Grade	PPGRD	TEXT	
Total Records: 1,005				

Table 3.9: DTppgrd.txt Record Layout

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-7 from "General" to "Text".

3.10 Salary Level

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the salary level data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 2 data elements. The record layout for DTsallvl.txt is depicted in <u>Table 3.10</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Salary Level	SALLVL	TEXT
2	Salary Level Translation	SALLVLT	TEXT
Total Records: 26			

Table 3.10: DTsallvl.txt Record Layout



3.11 STEM Occupations

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the STEM occupations data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 6 data elements. The record layout for DTstemocc.txt is depicted in <u>Table 3.11</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	STEM Occupation Aggregate	STEMAGG	TEXT
2	STEM Occupation Aggregate Translation	STEMAGGT	TEXT
3	STEM Occupation Type	STEMTYP	TEXT
4	STEM Occupation Type Translation	STEMTYPT	TEXT
5	STEM Occupation	STEMOCC	TEXT
6	STEM Occupation Translation	STEMOCCT	TEXT
Total Records: 116			

Table 3.11: DTstemocc.txt Record Layout

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-6 from "General" to "Text".

3.12 Supervisory Status

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the supervisory status data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 4 data elements. The record layout for DTsuper.txt is depicted in <u>Table 3.12</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Supervisory Status Type	SUPERTYP	TEXT
2	Supervisory Status Type Translation	SUPERTYPT	TEXT
3	Supervisory Status	SUPERVIS	TEXT
4	Supervisory Status Translation	SUPERVIST	TEXT
Total Records: 7			

Table 3.12: DTsuper.txt Record Layout



3.13 Type of Appointment

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the type of appointment data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 4 data elements. The record layout for DTtoa.txt is depicted in <u>Table 3.13</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Type of Appointment Type	TOATYP	TEXT
2	Type of Appointment Type Translation	TOATYPT	TEXT
3	Type of Appointment	TOA	TEXT
4	Type of Appointment Translation	TOAT	TEXT
Total Records: 21			

Table 3.13: DTtoa.txt Record Layout

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-4 from "General" to "Text".

3.14 Work Schedule

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the work schedule data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 4 data elements. The record layout for DTwrksch.txt is depicted in <u>Table 3.14</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Work Schedule Type	WSTYP	TEXT
2	Work Schedule Type Translation	WSTYPT	TEXT
3	Work Schedule	WORKSCH	TEXT
4	Work Schedule Translation	WORKSCHT	TEXT
Total Records: 12			

Table 3.14: DTwrksch.txt Record Layout

3.15 Work Status

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the work status data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 2 data elements. The record layout for DTwkstat.txt is depicted in <u>Table 3.15</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	Work Status	WORKSTAT	TEXT
2	Work Status Translation	WORKSTATT	TEXT
Total Records: 2			

Table 3.15: DTwkstat.txt Record Layout

NOTE: If importing this table (data set) into Excel, change the "column data format" for columns 1-2 from "General" to "Text".

3.16 Date

This "**delimited**" (comma separated value (**CSV**)) data file provides translations for the status file month date data element contained in the employee population data file (FACTDATA.TXT). See <u>Table 2.1</u>. Each column value is separated by a "**comma**" from the next column's value and each row starts a new record. Each record contains 2 data elements. The record layout for DTdate.txt is depicted in <u>Table 3.16</u> below:

Data Column	DATA ELEMENT NAME	CSV Column Name	CSV Column Format
1	File Date	DATECODE	TEXT
2	File Date Translation	DATECODET	TEXT
Total Records: 1			

Table 3.16: DTdate.txt Record Layout



FedScope Employment Cube (December 2021)

Raw Data Set (<u>https://www.opm.gov/data/</u>)

3.17 Employment

There is no translation file for this data element. Every record in the employee population data file (FACTDATA.TXT) contains a value of "1" for this field. See Chapter <u>4.17</u> for definition of <u>Employment</u>.

3.18 Average Salary

There is no translation file for this data element. See Chapter 4.18 for definition of <u>Average</u> <u>Salary</u> Average Salary.

3.19 Average Length of Service

There is no translation file for this data element. See Chapter 4.19 for definition of <u>Average</u> <u>Length of Service</u>





4 DATA DEFINITIONS

4.1 Agency

The employing organization.

4.2 Location

The official duty station of an employee. Locations in the United States are defined in terms of states. Locations outside the United States are defined in terms of countries and U.S. territories.

4.3 Age

An employee's age. Age is displayed in five-year intervals, except for an initial interval of less than 20 years and a final interval of 65 years or more.

4.4 Education Level

The extent of an employee's educational attainment from an accredited institution.

4.5 General Schedule & Equivalent Grade

The General Schedule grade for pay plans in the General Schedule and Equivalent pay plan category (See <u>Pay Plan & Grade</u>).

4.6 Length of Service

The number of years of Federal civilian employment, creditable military service, and other service made creditable by specific legislation. Length of service is grouped by five-year intervals, except for:

- a. the initial intervals of less than 1 year, 1-2 years, and 3-4 years and
- b. the final interval of 35 years or more.

4.7 Occupation

An employee's occupation as defined by the Office of Personnel Management (OPM).

4.8 Occupation Category

Occupational categories are defined by the educational requirements of the occupation and the subject matter and level of difficulty or responsibility of the work.

4.9 Pay Plan & Grade

The pay system and, where applicable, the grade used to determine an employee's basic pay rate. Grade denotes a hierarchical position in a pay plan and is sometimes referred to as level, class, rank, or pay band.

4.10 Salary Level

An employee's adjusted basic pay, which is an annualized rate of pay. Adjusted basic pay is the sum of an employee's rate of basic pay plus any locality comparability payment and/or special pay adjustment for law enforcement officers. Salaries are grouped by \$10,000 intervals, except for an initial interval of less than \$20,000 and a final interval of \$180,000 or more.

An employee's actual earnings may be more or less than the annualized rate because of factors such as overtime, shift differentials, less than full time work, or leave without pay.

4.11 STEM Occupations

Listing of occupations grouped into the following four occupational series:

- 1. Science
- 2. Technology
- 3. **E**ngineering
- 4. Mathematics

4.12 Supervisory Status

The nature of managerial, supervisory, or non-supervisory responsibility assigned to an employee's position.

4.13 Type of Appointment

An employee's appointment in terms of permanence and competitiveness.

4.14 Work Schedule

The time basis on which an employee is scheduled to work.

4.15 Work Status

A combination of Type of Appointment and Work Schedule data elements. The Work Status data element is limited to "Non-Seasonal Full Time Permanent" and "Other Employees".

4.16 Date

The file date (e.g. December 2021 represented by 202112).



4.17 Employment

A measure representing the number of employees in pay status at the end of the quarter (or end of the pay period prior to the end of the quarter).

4.18 Average Salary

A measure representing the average adjusted basic pay, an annualized rate of pay. Adjusted basic pay is the sum of an employee's rate of basic pay and any locality comparability payment and/or special pay adjustment for law enforcement officers.

An employee's actual earnings may be more or less than the annualized rate because of factors such as overtime, shift differentials, less than full time work, or leave without pay.

Invalid salary values are excluded from the average. A large number of invalid values could invalidate the average. To obtain counts of invalid values, display the data using the Salary Level dimension (See <u>Salary Level</u>).

4.19 Average Length of Service

A measure representing the average number of years of Federal civilian employment and creditable military service.

Invalid values are excluded from the average. A large number of invalid values could invalidate the average. To obtain counts of invalid values, display the data using the Length of Service dimension (See Length of Service).



5 APPENDIX

5.1 SAS Program to Read Raw Data Sets for Data Analysis

The SAS program below will read in the Employment cube Raw data sets and create 17 temporary SAS data sets for data analysis:

• ReadRawData_CreateTempDatasets_DataGov.sas

The SAS program above creates one "FACTDATA" table and 16 "Dimension Translations" tables. Refer to Chapter 2.1 and Chapter 3 for descriptive information pertaining to the 18 temporary SAS data sets (tables).

NOTE: SAS is **not** needed to utilize the FedScope raw datasets. The raw datasets are all comma separated values (**.CSV**) files.

5.2 FedScope General Public Web Site

More information regarding this raw data set is available at:

• <u>https://www.fedscope.opm.gov/</u>

Questions/Comments to: <u>mailto:FedScope.opm.gov</u>

