



# Explore API Documentation

SelfService\_Estimate\_ResourceEmploymentsReferencedData

Version 1.0

Last Modified: 11/14/2023

Last Modified By: Natalie Takacs

## Change Log

This changelog only contains significant or notable changes to the revision. Any editorial type changes or minor changes are not included.

Revision	Change Date	Description	Modified By
1.0	3/3/2023	Initial draft	Aaron Cohen
1.1	5/12/2023	Updated Replicate view and footer on first page	Natalie Takacs

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## Overview

The **SelfService\_Estimate\_ResourceEmploymentsReferencedData** API is one of multiple APIs comprising the data contained in the Estimate Resource Employment entity. A Resource Employment is an instance of a Resource as used in the Estimate, is assigned to a Cost Item and contributes to the Estimate when the Cost Items Cost Source is "Detail"

The Estimate Resource Employment entity mainly includes three tables

- *SelfService\_Estimate\_ResourceEmployments*
- *SelfService\_Estimate\_ResourceEmploymentsCalculatedValues*
- *SelfService\_Estimate\_ResourceEmploymentsReferencedData*

The *SelfService\_Estimate\_ResourceEmployments* table contains Resource Employment records as created and managed within the Estimate application.

The *SelfService\_Estimate\_ResourceEmploymentsCalculatedValues* table contains Resource Employment data commonly calculated in some way for display purposes in the application and can provide a convenient way to reference data as it appears in the application without needing to transform it for display purposes.

The *SelfService\_Estimate\_ResourceEmploymentsReferencedData* contains the values of the many foreign key lookup values stored in reference tables and can provide a convenient way to reference data as it appears in the application without needing to lookup the foreign key values from a lookup table.

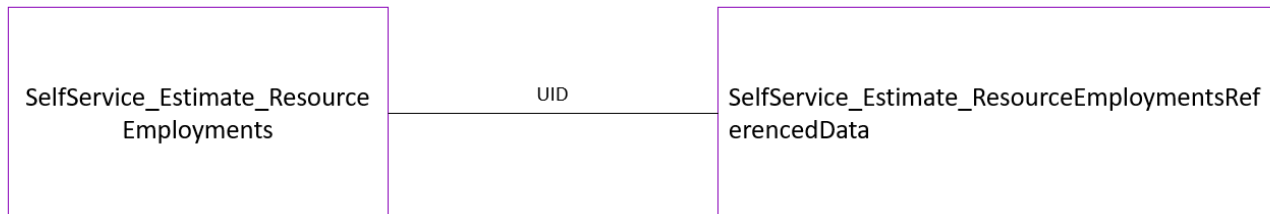
Monetary values stored in the database are stored in their base currency and corresponding values displayed in the application have been modified based on the conversion factor of the items assigned currency.

Quantity values stored in the database are stored in their base measurement units and corresponding values displayed in the application are potentially modified based on the conversation factor of the items unit of measure.

## Relationships and Dependencies

From: Table	To: Table	Relationship	Cardinality <sup>1</sup>	Comment
ResourceEmploymentsReferencedData (RERD)	ResourceEmployments (RE)	RERD.UID = RE.UID	1:1	

SelfService\_Estimate\_ResourceEmploymentsReferencedData



<sup>1</sup> 1:M = One to Many, 1:1 = One to One, M:1 = Many to one

## API Detail

Direction	From Project Suite	
Pagination	50,000 Rows	
Frequency	All Reporting APIs are used by calling a GET method at an interval determined by the customer. InEight suggests using these APIs on an infrequent basis (once per day) to avoid potential performance impact to live systems when the returned data set could be large.	
Trigger Method(s)	All default OData filters are supported	
Average Payload Size	Depends on date range selected	
APIM Name	SelfService_Estimate_ResourceEmploymentsReferencedData	
Replicate View	[SelfService].[vwEstimateResourceEmploymentsReferencedData]	
Data Refresh/Delta/Incremental Loads		
Project Suite	Starting Version	23.4
	Ending Version	NA

## Supported Filters

All default OData filters are supported by this API.

## Fields

Name	Type	Char Max Length	Numeric Precision	Date Precision	Product	PK
EstimateResourceEmploymentsReferencedDataId	bigint		19		Estimate	
EstimateResourceEmploymentsReferencedDataUF	uniqueidentifier				Estimate	
UID	uniqueidentifier				Estimate	
AccountCode	nvarchar	50			Estimate	
AlternateUnitOfMeasureName	nvarchar	50			Estimate	
CostCurveDescription	nvarchar	50			Estimate	
CostDriverDescription	nvarchar	50			Estimate	
CostItemAssemblyEmploymentRowNumber	int		10		Estimate	
CostItemAssemblySourceEmploymentRowNumber	int		10		Estimate	
CostItemWbsCode	nvarchar	100			Estimate	
CurrencyName	nvarchar	400			Estimate	
DistributionSourceEmploymentRowNumber	int		10		Estimate	
FuelAccountCode	nvarchar	50			Estimate	
FuelCostType	nvarchar	50			Estimate	

GeographicAreaDescription	nvarchar	50			Estimate	
OrganizationalCategoryDescription	nvarchar	50			Estimate	
OwnerEmploymentRowNumber	int		10		Estimate	
ParentRowNumber	int		10		Estimate	
QuantityRollUpCode	nvarchar	50			Estimate	
ResourceAccountCode	nvarchar	50			Estimate	
ResourceAssemblyCode	nvarchar	50			Estimate	
ResourceFileDescription	nvarchar	50			Estimate	
ResourceCode	nvarchar	30			Estimate	
UnitOfMeasureName	nvarchar	50			Estimate	
UserTag1Code	nvarchar	260			Estimate	
UserTag2Code	nvarchar	260			Estimate	
UserTag3Code	nvarchar	260			Estimate	
WageZoneDescription	nvarchar	50			Estimate	
WorkersCompOverrideDescription	nvarchar	50			Estimate	
BidMasterJobUID	uniqueidentifier				Estimate	
BidMasterJobCode	nvarchar	200			Estimate	
LastUpdateID	int		10		Estimate	
IsActive	bit				Estimate	
CreatedById	bigint		19		Estimate	
CreatedDate	datetimeoffset			7	Estimate	
ModifiedById	bigint		19		Estimate	
ModifiedDate	datetimeoffset			7	Estimate	

## Field Descriptions

Name	Description	Example
EstimateResourceEmploymentsReferencedDataId	Unique identifier assigned to each record in the table	1
EstimateResourceEmploymentsReferencedDataUF	System generated field, for internal use only	090F6F51-166C-08AD-2DB2-B39B089B438B
UID	Unique identifier for the Resource Employment. Not visible in the Interface	2FB8795D-12B7-428F-BC84-FDE202E77D47
AccountCode	Description of the Resource Employments <i>Account Code</i> assignment as found on the Resource Employment record. This value can also be obtained using the Resource Employments [AccountCodeUID] field in the ResourceEmployments table	1010



	and joining to the Accounts table.	
AlternateUnitOfMeasureName	Description of the Base Name of a Resource Employments selected <i>Unit of Measure</i> field value. This value can also be obtained using the Resource Employments [AlternateUnitOfMeasureUID] field in the ResourceEmployments table and joining to the UnitsOfMeasure table.	Meter
CostCurveDescription	Description of the Resource Employments selected <i>Cost Curve</i> field value. This value can also be obtained using the Resource Employments [CostCurveUID] field in the ResourceEmployments table and joining to the CostCurves table	Linear
CostDriverDescription	Description of the Resource Employments selected <i>Cost Driver</i> field value. This value can also be obtained using the Resource Employments [CostDriverUID] field in the ResourceEmployments table and joining to the CostDrivers table	CI Duration
CostItemAssemblyEmploymentRowNumber	Field for internal use only	0
CostItemAssemblySourceEmploymentRowNumber	For Resource Employments resulting from the employment of a Cost Item Assembly, this value indicates the Row Number of the CIA's employments	0
CostItemWbsCode	CBS Position Code field value of the Cost Item the Resource Employment belongs to.	2.3.3.7
CurrencyName	Description of the Resource Employments selected <i>Currency</i> field value. This value can also be obtained using the Resource Employments [CurrencyUID] field in the ResourceEmployments table and joining to the Currencies table	U.S. Dollar
DistributionSourceEmploymentRowNumber	For Resource Employments resulting from an activated Cost Item Allocation, this value indicates the Row Number of the allocation distributions Resource Employments	0

FuelAccountCode	For Resource Employments of an Equipment type and utilizing a Fuel Account Code, this value represents the Account Code assignment associated with the Fuel Type being used by the employments Resource Code	7000.100
FuelCostType	For Resource Employments of an Equipment type and utilizing a Fuel Account Code, this value represents the description of the Fuel Type being used by the employments Resource Code	Diesel
GeographicAreaDescription	Description of the Resource Employments corresponding <i>Geographic Area</i> field value	Southwest
OrganizationalCategoryDescription	Description of the Resource Employments corresponding <i>Organizational Category</i> field value	Truck Driver - Teamster
OwnerEmploymentRowNumber	For the employment of an Equipment Maintenance Resource Assembly, this value indicates the Row Number of the Resource Employment used to derive the Equipment Maintenance Resource Assemblies hours	0
ParentRowNumber	For a Resource Employment belonging to a Resource Assembly, this value indicates the Row Number of the Resource Assembly employed on the Cost Item	0
QuantityRollUpCode	Text value of the Resource Employments selected <i>Quantity Roll-up Code</i> . This fields value can also be obtained using the Resource Employments [QuantityRollUpUID] field in the ResourceEmployments table and joining to the QuantityRollUps table	200
ResourceAccountCode	Text value of the Resource Employments selected <i>Account Code</i> . This fields value can also be obtained using the Resource Employments [AccountCodeUID] field in the ResourceEmployments table and joining to the Accounts table	1020
ResourceAssemblyCode	Text value corresponding to the Resource Employments selected <i>Resource Assembly Code</i> . This fields value can also	CCONC



	be obtained using the Resource Employments [ResourceAssemblyUID] field in the ResourceEmployments table and joining to the ResourceAssemblies table	
ResourceFileDescription	Description of the Resource Employments corresponding <i>Resource File</i> field value	Standard Labor Rate File
ResourceCode	Text value corresponding to the Resource Employments selected <i>Resource Code</i> . This fields value can also be obtained using the Resource Employments [ResourceUID] field in the ResourceEmployments table and joining to the Resources table	LT1
UnitOfMeasureName	Description of the Resource Employments selected <i>Unit of Measure</i> field value. This value can also be obtained using the Resource Employments [UnitOfMeasureUID] field in the ResourceEmployments table and joining to the UnitsOfMeasure table.	Linear Feet
UserTag1Code	Text value appearing in Resource Employments <i>Tag 1</i> dropdown list. This fields value can also be obtained using the Resource Employments [UserTag1UID] field in the ResourceEmployments table and joining to the UserTags table	Non Union
UserTag2Code	Text value appearing in Resource Employments <i>Tag 2</i> dropdown list. This fields value can also be obtained using the Resource Employments [UserTag2UID] field in the ResourceEmployments table and joining to the UserTags table	Hourly
UserTag3Code	Text value appearing in Resource Employments <i>Tag 3</i> dropdown list. This fields value can also be obtained using the Resource Employments [UserTag3UID] field in the ResourceEmployments table and joining to the UserTags table	NULL



WageZoneDescription	Description of the Resource Employments corresponding <i>Wage Zone</i> field value	Wage Zone A
WorkersCompOverrideDescription	Description of the Resource Employments corresponding <i>Worker's Comp Override</i> field value	Bridge work 20 Ft high
BidMasterJobUID	Identifier of the Job record from the Jobs table in the BidMaster database. This field is not unique in this table but is unique to an instance of a Job. Not visible in the interface.	5376AA5E-8C85-43E8-9ACB-D7422000E832
BidMasterJobCode	Value of the Job Code field. This field value can also be found in the Code field of the Jobs table using the Resource Employments [BidMasterJobUID] field in the ResourceEmployments table and joining to the Jobs table.	Training Job
LastUpdateID	Field for internal use only	1
IsActive	Indicates if record is active. Please note: records will become inactive if a user un-syncs a job from Estimate application	true
CreatedByld	System generated Id, will always represent the system, not actual users. This field is for internal use only	1
CreatedDate	Date/timestamp record is entered	2022-02-21 17:47:05.4923658 +00:00
ModifiedByld	System generated Id, will always represent the system, not actual users. This field is for internal use only	1
ModifiedDate	Date/timestamp record is modified	2022-02-21 17:47:05.4923658 +00:00

## Sample

```
{
  "EstimateResourceEmploymentsReferencedDataId": 453,
  "EstimateResourceEmploymentsReferencedDataUF": "78cfca10-0094-0305-175b-eeb1fefcfa38",
  "EstimateUID": "0035d0aa-7800-4b12-bfab-6c59fd5b41f4",
  "AccountCode": "1330",
  "AlternateUnitOfMeasureName": "Each",
  "CostCurveDescription": "Employed Cost Item",
```



```
"CostDriverDescription": "CI Duration",
"CostItemAssemblyEmploymentRowNumber": 0,
"CostItemAssemblySourceEmploymentRowNumber": 0,
"CostItemWbsCode": "3.2.1",
"CurrencyName": "U.S. Dollar",
"DistributionSourceEmploymentRowNumber": 0,
"FuelAccountCode": null,
"FuelCostType": null,
"GeographicAreaDescription": "Southwest",
"OrganizationalCategoryDescription": "Operator",
"OwnerEmploymentRowNumber": 0,
"ParentRowNumber": 0,
"QuantityRollUpCode": null,
"ResourceAccountCode": null,
"ResourceAssemblyCode": null,
"ResourceFileDescription": "Standard Labor Rate File",
"ResourceCode": "L03",
"UnitOfMeasureName": "Each",
"UserTag1Code": "Non Union",
"UserTag2Code": "Hourly",
"UserTag3Code": null,
"WageZoneDescription": "Wage Zone A",
"WorkersCompOverrideDescription": null,
"BidMasterJobUID": "78falaba-7894-4817-a8f0-82e803a7bbcc",
"BidMasterJobCode": "AJL Training Job",
"LastUpdateID": 1,
"IsActive": true,
"CreatedById": 1,
"CreatedDate": "2022-06-16T21:37:18.6904981Z",
"ModifiedById": 1,
"ModifiedDate": "2022-06-28T20:20:26.5568369Z"
}
```

## Data Validation

This data can be validated by navigating to a Resource Employment record, the Resource Employment register, or expanding the details of a Resource Employment on a Cost Item in either the Cost Item Record or the CBS Register

Figure 1: Resource Employment register

CBS Position Code	Cost Item Description	Row Number	Code	Cost Curve	Geographic Area	Organizational Category	Wage Zone	Resource File
1.1	Mobilization	1	LT1	Employed ...	Southwest	Truck Driver - Teamster	Wage Zone A	Standard Labor Rate File
1.1	Mobilization	2	ETLT	Truck		Truck		Standard Equipment Rate File
1.1	Mobilization	3	ETTT	Back Loaded		Truck		Standard Equipment Rate File
1.2	Clearing & Grubbing	1	LL2	Bell Shaped		Laborer	Wage Zone A	Standard Labor Rate File
1.2	Clearing & Grubbing	2	LO4	Employed Cost Item		Operator	Wage Zone A	Standard Labor Rate File
1.2	Clearing & Grubbing	3	LT1	Front Loaded		Truck Driver - Teamster	Wage Zone A	Standard Labor Rate File
1.2	Clearing & Grubbing	4	LO1	Linear		Operator	Wage Zone A	Standard Labor Rate File
1.2	Clearing & Grubbing	5	ED6			Dozer		Standard Equipment Rate File
1.2	Clearing & Grubbing	6	ETFT			Truck		Standard Equipment Rate File
1.2	Clearing & Grubbing	7	ETDT	Employed Cost Item		Truck		Standard Equipment Rate File
1.2	Clearing & Grubbing	8	EL950	Employed Cost Item		Loader		Standard Equipment Rate File
1.2	Clearing & Grubbing	9	UDUMP	Employed Cost Item		Earthwork		Standard Unique Rate File
1.3.1	Excavation	1	ETWT	Resource Periods		Truck		Standard Equipment Rate File
1.3.1	Excavation	2	D8N-EQW	Employed Cost Item				EQW
1.3.1	Excavation	3	ES623	Employed Cost Item		Scraper		Standard Equipment Rate File
1.3.1	Excavation	4	ECOMP1	Employed Cost Item		Compactor		Standard Equipment Rate File
1.3.1	Excavation	5	ECOMP2	Employed Cost Item		Compactor		Standard Equipment Rate File
1.3.1	Excavation	6	LL2	Employed Cost Item	Southwest	Laborer	Wage Zone A	Standard Labor Rate File
1.3.1	Excavation	7	LO4	Employed Cost Item	Southwest	Operator	Wage Zone A	Standard Labor Rate File
1.3.1	Excavation	8	ES621	Employed Cost Item		Scraper		Standard Equipment Rate File
1.3.1	Excavation	9	EG14G	Employed Cost Item		Grader		Standard Equipment Rate File
1.3.1	Excavation	10	LO1	Employed Cost Item	Southwest	Operator	Wage Zone A	Standard Labor Rate File
1.3.1	Excavation	11	LO2	Employed Cost Item	Southwest	Operator	Wage Zone A	Standard Labor Rate File

Figure 2: Resource Employment record



Training Job - Training Job - Maricopa County No. TM2924 - Estimate

File Setup Estimate Quote Price Execution System Tools Actions

Highlight Unique (Delta) Employment Fields Open Haul Calculator Shift Rate Calculator

Default Data Blocks View Tools

Cost Breakdown Structure (CBS) Register Resource Employment Register Resource Employment Record

Identification

Code:  Total Cost:   
 Type:  Currency:   
 Description:  Quantity (Less Waste):   
 Employment Quantity:  Cost Driver:   
 Unit of Measure:  Waste % Add-on:   
 Unit Cost:  Productivity Factor:

Properties

Account Code:  Tag 1:   
 Resource Assembly Code:  Tag 2:   
 Cost Curve:  Tag 3:   
 Worker's Comp Override:  Custom 1:   
 Geographic Area:  Custom 2:   
 Worker's Comp Override %:  Custom 3:   
 Quantity Roll-Up Code:  Custom 4:   
 Organizational Category:  Custom 5:   
 Wage Zone:   
 Resource File:

Maintenance Labor Cost

Unit Cost:  Total Cost:

Pay Rules

Scale 1:  Scale 2:  Scale 3:   
 Composite Wage Scale:     
 For every  hours worked, pay  hours

Security

Last Changed By: System  
 Last Changed On: 7/19/2021 7:07:55 AM

Resource Employment Breakdown

Cost Category	Scale 1	Scale 2	Scale 3
Total	\$30.62	\$45.93	\$61.24
> Labor	\$30.62	\$45.93	\$61.24
> Owned Equipment	\$0.00	\$0.00	\$0.00
> Rented Equipment	\$0.00	\$0.00	\$0.00
> Supplies	\$0.00	\$0.00	\$0.00
> Materials	\$0.00	\$0.00	\$0.00
> Subcontract	\$0.00	\$0.00	\$0.00
> Fees	\$0.00	\$0.00	\$0.00
> Allowance	\$0.00	\$0.00	\$0.00
Project Overhead	\$0.00	\$0.00	\$0.00
Undefined	\$0.00	\$0.00	\$0.00
Billing Rate	\$42.87	\$64.30	\$85.73
Billing Rate Markup	\$12.25	\$18.37	\$24.50
Billing Rate Markup %	40.00	4...	4...

Resource Employment Breakdown Cost Item Details

OK Cancel < Prev Next >

As-Entered Currency As-Entered Units Training Job - Training Job - Maricopa County No. TM2924 Accrued Costs OFF

Figure 3: Employment Setup datablock of a Cost Item record

Training Job - Training Job - Maricopa County No. TM2924 - Estimate

File Setup Estimate Quote Price Execution System Tools Actions

Split Default Data Blocks Display Parent Information Display Billing Rate Highlight Unique (Delta) Resource Fields Highlight Unique (Delta) Cost Item Fields Insert Subordinate Edit Resource Periods Break Cost Allocation Link Trench Calculator Shift / Rate Calculator

Cost Breakdown Structure (CBS) Register Cost Item Record

CBS Code: 1.1 Optional Code: 641 0100 Description: Mobilization Forecast (T/O) Qty: 1.00 Unit of Measure: Lump Sum Unit Cost: \$12,485.51 Total Cost: \$12,485.51 Currency: U.S. Dollar

PI Assignment: 641 0100 PI Line Number: 10 PI Description: Mobilization Cost Segment: Direct Cost Pay Quantity: 1.00 Cost Source: Detail Alternate: BASE

Cost Item Summary Detail: \$12,485.51 Plug: \$500.00 Quote: \$500.00 Allocation

Row Number	Code	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Meas.
1	LT1		Teamster			1.00	Each
2	ETLT		Lowboy Trailer			1.00	Each
3	EITT		Tractor Truck			1.00	Each

Employment Setup

Identification  
Code: LT1 Type: Labor Rate  
Description: Teamster  
Quantity (Less Waste): Waste % Add-on:  
Quantity: 1.00 Productivity Factor: 1.00  
Cost Driver: CI Duration

Employment Cost  
Unit Cost: \$30.62 Total Cost: \$2,449.51

Maintenance Labor Cost  
Unit Cost: Total Cost:

Pay Rules  
Scale 1: Scale 2: Scale 3:  
Composite Wage Scale: 100.00 0.00 0.00  
For every 8.00 hours worked, pay 8.00 hours

Properties  
Currency: U.S. Dollar Tag 1: Non Union  
Account Code: 1020 Tag 2: Hourly  
Cost Curve: Employed Cost Item Tag 3:  
Worker's Comp Override: Consumption (UM/Hour):  
Geographic Area: Southwest Custom 2:  
Worker's Comp Override %: Custom 3:

As-Entered Currency As-Entered Units Training Job - Training Job - Maricopa County No. TM2924 Accrued Costs OFF

