

Intro to Financial Systems

Session 2: How is data organized and recorded

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Introduction to City & County of San Francisco financial systems

Slide 2:

Session 2: how is data organized and recorded. This video is to review how data is organized and recorded in the City's financial system. We will talk about:

- The codes used in the financial systems for funding source, organization and types of revenues & expenditures
- The codes for accounting general ledgers and
- The codes and transactions for recording accounting events in the system

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We need to know how data is organized before we can process any accounting transactions or do any financial inquiries in the system. So how is data organized?

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The data is organized around the three "W" questions. Where is the money coming from or going into? Who is in charge of the funding? And what is the purpose of the revenue or expenditure? We must have all three components identified for each transaction to be posted to the City's financial system.

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The Where question is answered by the hierarchy of Fund Type/Fund/Sub-Fund with Fund Type being the highest level.

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The code for Fund Type has two characters. The number indicates the type of fund, for example, "1" stands for General Fund and "5" stands for Enterprise Fund. For enterprise funds and agency funds, the letter following the number indicates the specific enterprise or agency fund. In the example here, 5W points to PUC Water Department enterprise fund.

The code for Fund has 5 characters and is a subcategory of Fund Type.

Sub-Fund has 8 characters, and is the lowest level in the fund structure hierarchy. So how does the hierarchy work?

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Using PUC Water Department enterprise fund as an example, the Fund Type is 5W. Within 5W, the enterprise fund has multiple funding sources including water sales and capital project bond issuance. The Fund code, 5W-CPF, specifically stands for the capital project funding for the PUC Water department. Under 5W-CPF, there are various Sub-Funds such as 5W-CPF-10B standing for 2010B Issuance of Bond funding PUC Water Department capital projects.

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Here are two examples of the fund type, fund and sub-fund codes. And again, they answer the Where question.

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How about the codes for the Who question? Who is in charge of the funding? The Who question is answered by Organization code, Program code, and Department Activity code. Note that these are three different codes and are mutually exclusive.

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There is a hierarchy within the Organization code. It starts from Department and can be down to the Division, Section, Unit, and Sub-unit level. For example, organization code DPW-BR-CP stands for Department of Public Works, Bureau of Building Repairs, Carpenter Section. For smaller departments, organization code can be as simple as just the 3-character department code.

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Program codes are mainly used in budgeting to represent major City service areas. Department Activity codes are used by a few large departments for various purposes.

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We mentioned that the Who codes are mutually exclusive. What is the relationship among these codes then?

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The relationship could be complicated. It may not be just one to one, but may be one to many or many to one.

This table displays an example of the relationship between Organization and Program. FAL, Children's Baseline program involves all the departments listed on the right, including ECN, Office of Economic and Workforce Department. On the other hand, ECN is in charge of many programs including FAL.

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How about the relationship between the Where codes and the Who codes? This table displays an example of the relationship between Fund, the Where code, and Organization, one of the Who Codes. General Fund provides funding for many City departments including ECN. On the other hand, ECN has multiple funding sources including General Fund.

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We have talked about the Where codes and the Who codes. Let's now look at the What codes. The What question is answered by the hierarchy of Character/Object/Sub-Object. Character is the highest level of categorization for type of revenue or expenditure. Sub-Object is the lowest.

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Let's look at the example here. Character 001 refers to a very broad category of expenditures: salaries. Other broad categories include fringe benefit, non-personnel services, materials & supplies and interdepartmental services. Going down to the next level, Object 001 is one of the subcategories of Character 001. It is Salaries for Permanent Miscellaneous Employees vs., let's say, Salaries for Permanent Uniformed Employees or for Temporary Employees. Sub-object is the lowest level and Sub-object 00101 is one of the subcategories of Character 001 Object 001. It's the salaries for the regular work hours for Permanent Miscellaneous Employees vs., let's say, for their sick hours and vacation hours.

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As we can see, there are many codes for the three W questions. To simplify the codes that we need to input in the financial system to record activities, one code is used to answer both the Where question and the Who question. Another code is used to include all the What question information. What are these two codes?

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Index Code is used to represent the combination of funding source (Where) and department (Who). Index Codes represent the cost centers.

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Project Code, Grant Code and User Code can also help answer the Where and Who questions. These codes can be embedded in the index codes or can be variably added. If the codes are embedded, then there is a one-to-one relationship with the index code. We will talk more about these codes in the following slides.

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For the What question, Sub-object code has all three levels of information, that is, Character, Object and Sub-object. The sub-object is the required level for posting accounting entries. The Character and Object levels are used for budget and reporting purposes.

You will need at least an Index Code and a Sub-object code to input anything in the financial system.

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Let's talk more about Index Code, Project Code, Grant Code, User Code and Sub-Object Code.

As mentioned, Index Code is used to answer both the Where and the Who questions. It represents cost centers. Fund, organization, department activity and program information could all be embedded into index codes. Note that all financial transaction input requires an index code.

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Project Codes are used to track project related activities. If the project and the cost center represented by the Index Code have a one-to-one relationship, the Project Code can be embedded in the Index Code. However, if a project involves various funds and departments or if a cost center funds multiple projects, the Project Code needs to be manually entered at the time of transaction in addition to the Index Code. The following two slides further explain the possible relationship between a project and a cost center, that is, the relationship between project and fund, and the relationship between project and organization.

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The table here displays an example of the relationship between a project and a fund. CUW368 – BDPL Hydraulic Capacity Upgrade project, is funded by PUC Water Department Operating Fund AND Capital Project Fund. On the other hand, PUC Water Department Capital Project Fund funds many projects including CUW368.

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This table displays an example of the relationship between a project and an organization. CSH700 – San Bruno Jail No.3 Demolition project is managed by DPW AND Sheriff. On the other hand, Sheriff's Department has many projects including CSH700.

From this slide and the previous one, we can see the possible relationship between a project and a cost center, that is, an Index Code could be one-to-one, one-to-many, or many-to-one.

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Grant Codes are used to track grant related activities. Just like Project Code, if the grant and the cost center represented by the Index Code have a one-to-one relationship, the Grant Code may be embedded in the Index Code. If a grant involves various funds and departments or if a cost center funds multiple grants, the Grant Code needs to be manually entered at the time of transaction in addition to the Index Code.

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User Codes are used for revenue transfers between funds and departments. It is also used by certain departments for special tracking or reporting purposes. For example, Airport uses user code to track Passenger Facility Charges from different airlines.

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As mentioned, Sub-object code is used to answer the What question, that is, what is the money being used or received for. It is the lowest level of the object structure and is linked to both Character and Object.

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Let's use an example to show how data is organized in the financial system with a breakdown of the various codes. Remember, for every transaction, the data structure identifies which department is responsible, which fund is involved, and what is the purpose.

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In the example here, the department is identified by a 3-character Organization Code: AAM. The funding source, general fund non-project sub-fund, is identified by Fund Type, Fund and Sub-Fund: 1G-AGF-AAA. We use an index code, 625002, to represent the combination of AAM and 1G-AGF-AAA. It reduces the amount of coding for accounting entries.

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If the purpose of the entry was to record hotel room taxes, the codes for Character, Object, and Sub-object would be 120, 122, and 12210. If it was to record salary for regular hours for miscellaneous employees, the codes would be 001, 001, and 00101. When making accounting entries, we simply use the Sub-object Code. Sub-Object Codes point to the full object hierarchy.

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At a minimum, we need an Index Code and a Sub-Object Code to input an accounting transaction. Project Code, Grant Code and User Code can be added when needed. So looking at the example here, what codes should we use if we want to record hotel room tax revenue to the General Fund of Asian Art Museum? It's going to be Index Code 625002 and Sub-Object 12210.

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Recall from Session 1 of the training, assets minus liabilities equal fund balance. Fund balance is affected by operating accounts such as revenues and expenditures. The City also has budgetary accounts. The codes for all these accounts are General Ledger Codes.

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We have General Ledger Codes for assets, liabilities, fund equity, operating accounts & budgetary accounts. We also have Subsidiary Ledger Codes for subsidiary accounts within the general ledger accounts.

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General Ledgers are coded with three-digit numbers. Asset accounts start with 1. An example is 101 Cash. Liability accounts start with 2, for example, 202 Accounts Payable. Fund equity accounts start with 3. Examples include 399 Unreserved Fund Balance. 400 series General Ledger Codes could be for Operating Accounts, for example, 431 Expenditures, or for Budgetary Accounts, for example, 470 Encumbrances.

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This section will display the basic format of the all codes that we have talked about so far.

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This slide and the next one list the City's data classification structure. They represent all the elements used in the City's financial systems.

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[Audio] None

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For more information on data coding format, please follow this link and go to the FAMIS Classification Structure document.

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We have talked about how data is organized. How about recording of the data?

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Data is recorded using transactions. Specifically, we have Transaction Codes to tell the system which accounts to increase or decrease and what files to update. There are specific transaction codes to record everything including budget increases and decreases, encumbrance setup and liquidation, expenditures, payments due, revenues, receivables, check issuance, bond issuance, and many, many more. There must be a transaction code for every entry into the City's financial system.

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Therefore, to record anything in the system, we must use the transaction code to tell the system what to do, the index code to charge the correct organization and fund, and the sub-object code to describe what the revenue or expenditure is for.

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Here is an example of a transaction. It used Transaction Code 408, Sub-Object 12210 and Index Code 625002 to allocate hotel room tax revenue to Asian Art Museum General Fund.

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You may have noticed that Transaction Codes, just like General Ledger Codes, are three-digit numbers. Don't confuse Transaction Codes with General Ledger Codes. They are two different sets of codes.

There are many, many transaction codes for all types of accounting events. The transaction code ranges listed here can help us identify the correct codes to use. For example, if the transaction code was 061, we would know that it is a Budget entry. For complete listing and full understanding of Transaction Codes, go to FAMIS screen 5400.

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Let's take a closer look at the transaction example. Every transaction in the system has a 14 digit document number. The first 2 characters are the Document Prefix which helps identify the type of transaction. The second 2 characters are the 2-character department code. The third pair of digits represents the fiscal year. The next 6 digits are a sequential number generated by the system. The last 2 digits are the line number of the transaction. A transaction may have multiple lines serving different purposes. For example, line 1 may be used to make payment out of one index code and line 2 out of another.

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For more information on Document Type and Document Prefix, follow the link provided here.

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For more information on Department Code, follow this link and go to the Department Number and Code Matrix.

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This is the FAMIS screen print of the transaction example. Displayed on top is the transaction document number. This is a simple transaction that used the three required codes: Transaction Code, Index Code and Sub-Object Code. As needed, you can also enter Project Code, Grant Code, User Code, General Ledger Code, etc.

This concludes How Data is Organized and Recorded, Session 2 of Introduction to Financial Systems. Please proceed to Session 3 of the training.