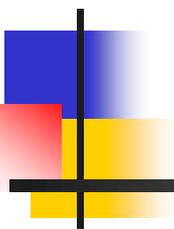# Job Analysis Data: What's to be Mined?

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Traditional Job Analysis

- Task focused

- Asks participants to estimate time over a particular time period

- May also include personality characteristics

Time and Motion Studies

- Used early in I/O psychology, now primarily in the realm of industrial engineering

- Extremely valuable
  - Determining the best (most efficient) way to do a task
  - Determining the physical requirements of the task

This Project

- Client had a need to determine:
  - Percentage of time spent on the projects
  - Labor dollars spent on the projects

This Project

- **Constraints**
  - Information based jobs
  - Population (~100) spread out geographically
  - Company was fighting against every day tracking of time

Job Analysis Portion

- Determined the tasks performed via
    - Job descriptions
    - Regulatory rules/legal decisions
    - Focus groups

Time and Motion Portion

- Could not economically observe participants
  - Performance of same job unique based on location
  - A lot of information-based work, so asking about it would affect the time spent on it

Time and Motion Portion

- Designed an on-line tool to for participants to capture their time spent in each area

- Time could be captured 24/7

Time and Motion Portion

- Smallest increment of time would be 15 minutes

- Make entries same day

- Two 6-week time periods used

Example

Choose activity from drop-down

Choose approximate start/stop time

Describe activity for validation of data

	Activity Name		Time Start		Time End	
1	Administration	⌄	8:00 AM	⌄	8:30 AM	⌄
2	Providing Support on Financial Issues	⌄	8:30 AM	⌄	10:00 AM	⌄
3	Educating Business and Community Groups on Energy Efficiency and Demand Response	⌄	10:00 AM	⌄	12:00 PM	⌄
4	Lobbying	⌄	12:00 PM	⌄	1:30 PM	⌄
5	Customer Facilitation/Problem Solving	⌄	1:30 PM	⌄	2:00 PM	⌄
6	Corporate Citizenship and Company Representative	⌄	2:00 PM	⌄	3:00 PM	⌄
7	Providing System Operating Support	⌄	3:15 PM	⌄	3:45 PM	⌄
8	Interacting With Media	⌄	3:45 PM	⌄	4:30 PM	⌄
9	Educating Business and Community Groups on Energy Efficiency and Demand Response	⌄	4:30 PM	⌄	5:00 PM	⌄
10	Monitoring: Local	⌄	6:30 PM	⌄	9:30 PM	⌄
11		⌄		⌄		⌄
12		⌄		⌄		⌄

	Description
1	Checked e-mail and voice mail.
2	Met with CRE on right-of-way issue.
3	Made presentation to city on SCE's EE/DR programs.
4	Monthly Chamber Governmental Affairs Committe lunch.
5	Handled customer billing issue.
6	Call w/community leaders about applying for SCE grants.
7	Worked on Rule 20 issue.
8	Gave interview on rotating outages.
9	Worked on EE/DR presentation.
10	Attended city council meeting.
11	
12	

For which day would you like to enter data next?

- ✓ Tuesday, April 17
- Wednesday, April 18
- Thursday, April 19
- Friday, April 20
- Saturday, April 21
- Sunday, April 22
- I've completed my entries for now.

Prev   Next

Analysis

- Time percentages computed for activity
  - Some activities put into higher level groups
- Comparisons made between employee groups
- Time percentages computed then reported to finance department for budgeting

Analysis

- Coding the descriptions led to an even deeper dive
  - What types of specific projects were worked on?
  - Within an activity, was more attention given to one area than another?
    - Difficult vs. path of lease resistance
  - Was there balance between customer groups?

Applications

- Job Analysis
  - Provides a more accurate estimate of time spent on certain activities than a focus group or limited observation
  - Gets people to think very concretely about what they are working on in real time
  - Can provide a very realistic job description in terms of what a person will be doing on the job

Applications

- Performance Management
  - Is the person spending time where s/he "should" be?

- Helps you understand seasonality of performance

- Adjust resources in real time
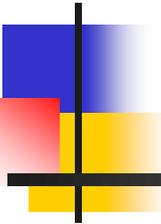
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Caveats

- Availability/willingness of participants to complete on a daily basis
  - Depending on job complexity, results become reliable in 4-5 weeks

- There will be some time fudging

Conclusion

- Job analysts have the skills to provide other job evaluation services

- Original I/O psychology concepts, such as time and motion, are useful in understanding jobs in a knowledge-based organization

- The data we gather can be used for several uses that have significant ROI

Q&A