

Full Economic Costing of Research The UK Experience

Workshop 2

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1. TRAC
2. What is FEC
3. Implementation of FEC at Oxford
4. Implementation Issues
5. Topics for Discussion



TRansparent Approach to Costing - TRAC

- Activity-based costing
- Annual retrospective allocation of costs from audited financial statements to activities at institutional level
- As many costs as possible identified as direct
- All other costs allocated on a robust basis using consistent cost drivers
- Accounting for use of academic staff time
- Two cost adjustments
 - Infrastructure cost adjustment
 - Return for financing and investment

TRAC based on

- Consistency (across time and sector)
- Flexibility and choice of methods
- Materiality
- Auditability (of methodology)



TRAC Methodology (1)

Costs allocated to

- Teaching
 - Publicly funded
 - Non-Publicly funded
- Research
 - Publicly funded
 - Non-Publicly funded
- Other



TRAC Methodology (2)

- Infrastructure Cost Adjustment
 - Depreciation of assets charged on a ‘current value’
 - Assumes value of estate and maintenance spend are appropriate
- Return for financing & Investment
 - A proxy for cash required for institutions to be sustainable
 - The economic cost of capital (incl existing borrowing & opportunity costs of cash used for financing)
 - Set at national level

Accounting for staff time

- Flexibility in methodology but must update data at least every 3 years
- No time sheets
- Apportionment of time in given period



Oxford Academic Activity Survey

- All academic staff required to complete time allocation over one week each year
- Web based system
- Weeks/academics chosen randomly by system (approx 35 each week, 52 weeks pa)
- Data aggregated to departmental level
- Time allocated to Teaching, Research & Other
- Then broken down to type of activity under each (funding, contact hours, special courses, support, etc)

What is FEC?

- **Directly Incurred Costs (DI)**
Additional costs incurred for running the project
 - Research assistance / technical support/consumables/etc
- **Directly Allocated Costs (DA)**
On-going infrastructure / support costs
 - Academic / research staff time
 - Estates charges (allocated per full-time researcher)
 - Depreciation
- **Indirect Costs**
 - General central/local support costs
 - Cost of Capital Employed

Directly incurred costs - 1

- explicitly identifiable costs which arise because of the running of the project
- If the project did not take place, then the expenditure would not be incurred, or it would be wholly dedicated to another project or activity
- Examples are:
 - research assistants working on nominated projects
 - consumables, travel
 - dedicated technicians
 - equipment



Directly incurred costs - 2

- Generally straightforward as all costs of these items will be charged to the particular project
- Costs charged on actual basis, and supported by auditable record
 - So staff costs are based on actual salaries
 - If time is split between two projects, then time sheet needed



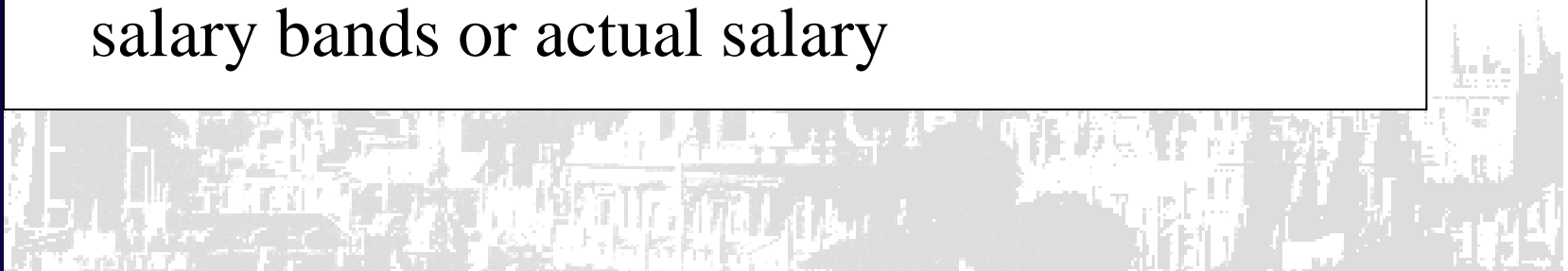
Directly allocated costs - 1

- Costs of resources used by the project shared with other activities
- If the project did not take place, then the expenditure would still be incurred – the resource might be less well used, or other projects might take up some spare capacity
- Examples are:
 - academics/research staff working on several projects
 - pool technicians who support a number of projects or who provide infrastructure services to one or more research areas
 - research facilities (eg large items of equipment, animal houses)
 - estates (the costs of the space in the research area required for the project, and local support space).



Directly allocated costs 2 – Academic/Research staff time

- PI/Co-apps estimate time spent on project (actual hours)
- Expressed as hours per week/project (not %)
- £ per hour based on notional fEC standard hours of 1650 hrs pa (220 days @ 7.5hrs per day)
- Apply cost according to grade of staff using salary bands or actual salary

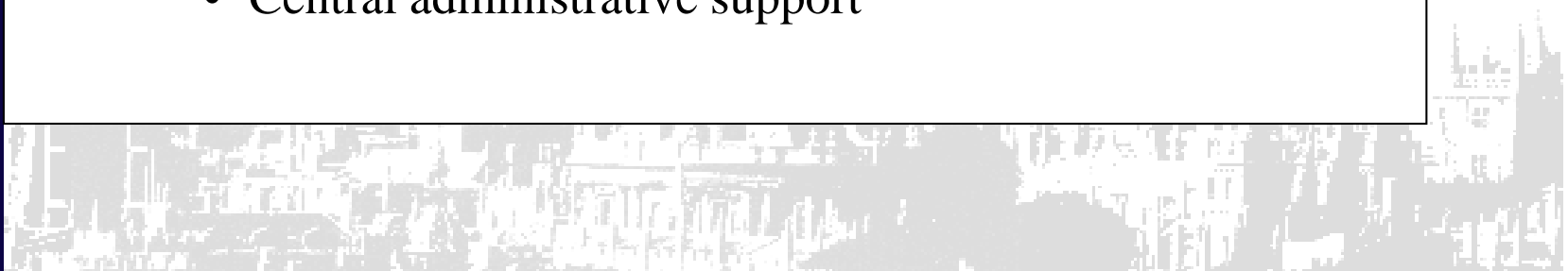


Directly Allocated Costs – 3 Estates

- Charged on the basis of actual estates costs incurred by the University
- Covers costs of all research areas and departmental/central support of those areas
- Includes depreciation and maintenance
- Costed by category (lab, non-lab)
- Charged to projects as £ per FTE of ALL academic/research staff (not support staff, unless performing research)
- Two rates (lab/non-lab) approved by HEFCE and calculated by dividing total estates cost by number of academic staff to get a £ per FTE

Indirect costs - 1

- **Indirect**
 - Non-specific costs charged across all projects, not otherwise included as directly allocated costs
 - Generally incurred on a University wide basis
 - Examples are:
 - Computer facilities
 - Libraries
 - Insurance
 - Central administrative support



Indirect Costs - 2

- Based on actual costs incurred at University level, allocated between Research, Teaching and Other
- £ per FTE calculated by dividing total indirects by number of academic staff
- Single rate across University – approved by HEFCE
- Charged as £ per FTE of ALL academic/research staff (not support staff, unless performing research)



Oxford Implementation of fEC

Translating TRAC data to project level

- Oxford one of ten pilot universities
- Started fEC development 2003
- fEC implementation project started June 2004
- fEC implemented at project level September 2005



Challenges of Implementation

- **Structural**
 - how approach project?
 - impact on organisational decision-making
- **Cultural**
 - how persuade staff of need for fEC?
- **Technical**
 - understanding & delivering fEC requirements
 - relation to internal charging mechanisms
 - systems requirements



Project Approach

- Steering Committee (academic & management)
 - Costing Working Group
 - Communication/training Working Group
- Project Manager
- Collaboration across central departments
 - Research Services/Finance/Planning/Estates
- Additional staff/resources
 - Additional staff
 - New IT systems
 - Changes to existing systems

Key Implementation Issues (1)

Collecting/updating core (TRAC) data across teaching, research and other activities

- Collation of academic activity time allocation
- Identification and apportionment of Estates costs (£ per FTE – eventually £ per m²)
- Identification and allocation of Indirect costs (including cost of capital employed)



Key Implementation Issues (2)

At Project level

- Academic/research staff time estimation
- Calculating salary bands for DA staff
- Applying estates costs at local level
- Cost of major research facilities/services
- Costing/Pricing tools
- Handling fEC on Finance system
- Communication & Training (*change and uncertainty leaves people feeling vulnerable*)



Key Implementation Issues (3)

Pricing

- Determine pricing strategy
- Price will be dependent on various factors:
 - Type of sponsor
 - Availability of other support
 - Strategic priorities of Department



Pricing for Industry

- Move away from costs
- Impact on cost of projects
- Develop decision-tree to aid pricing strategy
 - Who's driving the project
 - How important is it to Company/University
 - What IP is being brought to it
 - Who else could do the work
- More professional approach to delivery
- Put a price on IP?
- Tailor work to budget

Post Implementation

- **Monitoring impact**
 - Volumes
 - Cost recovery
 - Behaviour
- **Development of systems**
 - Costing/pricing tools
 - Activity surveys
 - Finance systems
- **Aligning Resource allocation models to FEC**
 - Avoiding conflict/perverse incentives
- **Define/Refine research Strategy**
 - Planning and decision-making
 - Cross-subsidies

Issues for Discussion

1. Funding base and structure
2. Strategies and decision-making in universities
3. Identifying costs & obtaining data
4. Systems and Resource implications
5. Communication, Management and Training
6. Benefits/Risks, Incentives/Disincentives

