

# **COSTS & BUDGET OF RESEARCH: ASSIGNING & DETERMINATION**

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تحديد ميزانية ومصروفات البحث

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### مصروفات البحث

## COSTS OF RESEARCH

- **COSTS NEEDED FOR RESEARCH**
- **DIRECT COSTS**
- **INDIRECT COSTS**
- **COST SHARING COMMITMENTS**
- **SPONSER OF RESEARCH**

# WHAT ARE COSTS NEEDED FOR RESEARCH 1?

## ما هي التكاليف المطلوبة للبحث؟

- **An Amount that Has to be Paid or Spent to Buy or Obtain Something.**  
المبلغ الذي يجب دفعه أو إنفاقه على شراء أو الحصول على شيء ما.
- Administrative costs of laboratories , offices & department/s
- Supplies & Materials needed for a research project: are consumable items as lab supplies (pipettes, tips); clinical supplies; lab animals; glassware; chemicals; reagents; etc.
- Facilities costs of laboratories , offices & department/s (water, sewage, electricity, etc. )
- Instrument/s needed for a research project.

# WHAT ARE COSTS NEEDED FOR RESEARCH 2?

## ما هي التكاليف المطلوبة للبحث؟

- **An Amount that Has to be Paid or Spent to Buy or Obtain Something.**  
المبلغ الذي يجب دفعه أو إنفاقه على شراء أو الحصول على شيء ما.
- Salaries of individuals who will be hired to work on a research project.
- Maintenance on a HVAC system (heating, ventilation, and air conditioning) to improve the air quality in laboratories and offices
- Travel expenses for individuals who will work on a research project.
- Fees for consultants.

# WHAT IS A DIRECT COST OF RESEARCH?

## التكلفة المباشرة

- Supplies & Materials needed for a research project: are consumable items as lab supplies (pipettes, tips); clinical supplies; lab animals; glassware; chemicals; reagents; etc.
- Instrument/s needed for a research project.
- Salaries of individuals who will be hired to work on a research project.
- Travel expenses for individuals who will work on a research project.
- Fees for consultants.
- **Definition:** “Direct costs are those which can be identified *specifically* with a particular project & which can be directly assigned to such activities, relatively *easily* & with a high degree of *accuracy*”.

# WHAT IS AN INDIRECT COST OF RESEARCH?

## التكاليف غير المباشرة

- Maintenance on a HVAC system (heating, ventilation, & air conditioning) to improve air quality in laboratories & offices
- Administrative costs of laboratories , offices & department/s
- Facility costs of laboratories , offices & department/s (water, sewage, electricity, etc. )
- **Definition/s**: “Costs incurred for a common or multi-party purpose benefitting more than one (1) cost objective”.
- “Costs that are not directly allocable to one (1) specific project because indirect costs support multiple projects”

# WHAT IS SPONSOR OF RESEARCH?

ماذا أو من هو راعى البحث؟

THE SPONSOR IS USUALLY THE MAIN FUNDER OF A RESEARCH PROJECT (BUT DOES NOT HAVE TO BE)

## Definition OF SPONDER:

- Is individual, company, institution
- Or organisation, Or chief investigator's employer, صاحب عمل الباحث الرئيسي
- Or educational institution [if student research],
- Or care organisation [where research take place]
- which take responsibility
- for initiation, management (or arranging initiation & management) of
- &/or financing (or arranging financing) for a research project
- & Take responsibility for ensuring
- design of study meets standards
- & there are preparations to guarantee research project conduct & reporting

# WHAT IS COST-SHARING COMMITMENTS?

ما هي التزامات تقاسم التكاليف

- Part of costs of a research project that is not funded by sponsor financing it
- These costs to be paid by a university or by third parties (e.g. vendors).
- Only do cost-sharing if obligatory by sponsor & in exact required amount.



# WHAT ARE TYPES OF COST-SHARING?

ما هي أنواع تقاسم التكاليف؟

- Faculty effort needed for project.
- Non-faculty salaries, equipment, supplies & materials needed for project.
- Reductions of indirect costs, [only when an agency or program has a formal indirect cost rate lower than university's current rate or prohibits indirect cost recovery].
- Third party contributions [in-kind or cash].  
Example: donated use of meeting space or auditorium for which a fee is usually charged.

# WHICH EXPENDITURES ARE ALLOWABLE FOR COST SHARING?

## ما هي النفقات المسموح بتقاسمها؟

Which Expenditures are Allowable for Cost Sharing?	ما هي النفقات المسموح بها لتقاسم التكاليف؟
Necessary for efficient accomplishment of research objectives.	
Treated under applicable government guidelines.	
Incurred during effective dates of grant.	
Verifiable from official records.	
Not included as contributions for any other fund assisted project.	
Not paid by government under another award (except where authorized by law) .	
Unrecovered indirect costs may be included as part of cost sharing.	

# WHICH EXPENDITURES ARE NOT ALLOWABLE FOR COST SHARING?

## ما هي النفقات التي لا يمكن تقاسمها؟

Which Costs are Not Acceptable as Cost Sharing?	ما هي النفقات غير المسموح بها لتقاسم التكاليف؟
Not deemed necessary for efficient accomplishment of research objectives.	
Costs included & reimbursed by university (administrative salaries, office supplies, library expenses, & operations & maintenance expenses).	
Pledged as Cost Sharing for another funded project.	
Funded by other sponsored programs.	
Costs considered unallowable by the university or sponsor.	

## Contents 2

### ميزانية البحث

## BUDGET OF A SCIENTIFIC RESEARCH

- ❑ **IMPORTANT NOTICE**
- ❑ **DEFINITION OF A SCIENTIFIC RESEARCH PROJECT**
- ❑ **DEFINITION OF A RESEARCH PROJECT BUDGET**
- ❑ **DOCUMENTATION OF A RESEARCH BUDGET**
- ❑ **COST ESTIMATION METHODS IN A BUDGET**
- ❑ **COSTS PERMITTED TO INCLUDE IN A SCIENTIFIC RESEARCH PROJECT BUDGET**
- ❑ **EXCALATION FACTOR FOR COST**
- ❑ **PROJECT COST ASSIGNMENT & COST ALLOCATION**

**IMPORTANT NOTICE:**  
**FINANCIAL BUDGETING IS PERFORMED STARTING FROM THINKING OF AN  
IDEA FOR ANY RESEARCH UNTIL FINALIZING & REPORTING OF THE SPECIFIC  
FINDINGS OF THE CHOSEN RESEARCH PROJECT**



**ملاحظة هامة**

يتم تنفيذ الموازنة المالية بدءاً من التفكير في أي بحث حتى الانتهاء من إعداد التقارير الخاصة بمشروع البحث المختار والإبلاغ عنها

## WHAT IS THE DEFINITION OF A SCIENTIFIC RESEARCH PROJECT?

ما هو تعريف مشروع البحث العلمي؟

- Is the Detail of Performing Laboratory Work for One Research Study that is Described in One Research Proposal.
- هو تفصيل أداء العمل المختبري لدراسة بحثية واحدة موصوفة في مقترح بحثي واحد
- By a Principal Investigator (chief investigator)
- الباحث الرئيسي

## WHAT IS THE DEFINITION OF A SCIENTIFIC RESEARCH PROJECT BUDGET?

ما هو تعريف ميزانية مشروع البحث العلمي؟

- A fixed list of expected research project costs
- that represent principal investigator's best estimate of needed funds
- to support work described in one research proposal.
- A budget consists of:
  1. direct costs,
  2. Indirect costs (facilities & administrative costs)
  3. Cost-sharing commitments

## WHAT IS MEANT BY DOCUMENTATION OF A RESEARCH BUDGET ?

ما المقصود بوثائق ميزانية البحث؟

### Guidelines:

Principal investigator must maintain supporting documentation of cost estimates for negotiation and audit purposes.

Documentation should clearly describe

Or demonstrate method used to estimate project costs.

### Examples of supporting documentation include:

- University salary & wage scales
- Vendor quotes
- Catalog prices
- Historical records indicating supply/material costs incurred for similar projects



## WHAT ARE COST ESTIMATION METHODS IN A BUDGET?

ما هي طرق تقدير التكلفة في الميزانية؟

- Use accepted cost estimation methods:
- Catalog prices, price quotations,
- OR historical or current costs.
- For patient care costs at a hospital PI needs to get financial assessment from clinical research agency.

## WHAT ARE THE COSTS PERMITTED TO INCLUDE IN A SCIENTIFIC RESEARCH PROJECT BUDGET?

ما هي التكاليف التي يسمح بها في ميزانية مشروع البحث العلمي؟

- The permitted proposed costs must
- clearly benefit the scientific research project &
- must be allowable under college policies, university policies , sponsor policies & government laws

## WHAT IS AN PRICE ESCALATION OR INFLATION FACTOR REQUIRED FOR COST ESTIMATION ?

ما هو عامل التصعيد أو التضخم المطلوب لتقدير التكاليف

- **Price Escalation**: "*refers to a persistent rise in price of specific commodities, goods, or services due to a combination of inflation, supply/demand, & other effects such as environmental & engineering changes.*"
- تصعيد الأسعار "يشير إلى الارتفاع المستمر في أسعار سلع أو خدمات معينة بسبب مزيج من التضخم والعرض والطلب وغير ذلك من الآثار مثل التغيرات البيئية والهندسية".

# WHAT IS AN PRICE ESCALATION OR INFLATION FACTOR REQUIRED FOR COST ESTIMATION ?

ما هو عامل التصعيد أو التضخم المطلوب لتقدير التكاليف

- **Inflation**: is an economic term that indicates increase in price of goods & services over time & is precisely defined as “*a persistent rise in prices associated with .. goods & services that is not offset by increased productivity.*”

التضخم: هو مصطلح اقتصادي يشير إلى ارتفاع أسعار السلع والخدمات على مر الزمن ويعرف بدقة بأنه "ارتفاع مستمر في الأسعار المرتبطة بالسلع والخدمات التي لا تقابلها زيادة الإنتاجية".

- **Inflation** is one of the **factors** that cause **price escalation**.
- As such for research budget make sure to use inflationary or escalation factors as appropriate to your country.
- E.g. USA escalation rate for non-personnel cost categories is 3%.

## HOW TO PERFORM A RESEARCH PROJECT COST ASSIGNMENT & COST ALLOCATION OF ITEMS?

كيفية تنفيذ تكلفة البحث في المشروع وتكلفة تخصيص البنود؟

- When developing a budget, it is necessary to estimate how project will incur costs during its phase or years.
- Budget must itemize costs by major cost category.
- Major cost categories (salaries, fringe benefits, supplies, equipment, travel, other direct costs, & facilities & administrative costs)
- Describe details of costs proposed within each major cost category.
- Use general descriptions that can be tracked & reported.

# Resources

## **Brown University**

<https://www.brown.edu/research/conducting-research-brown/preparing-and-submitting-proposal/proposal-review-submission-osp/cost-sharing-faqs>

## **Duke University**

<https://ors.duke.edu/orsmanual/direct-costs-proposal-preparation>

## **National Institute of Health**

<https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/develop-your-budget.htm>

## **NHS. Health Research Authority**

<http://www.hra.nhs.uk/resources/before-you-apply/roles-and-responsibilities/sponsor/>

Penn State College of Earth & Mineral Sciences

<https://www.e-education.psu.edu/eme460/node/546>

## **University of California, Irvine**

<https://www.research.uci.edu/sponsored-projects/contracts-grants-admin/proposal-prep/budget-general-info.html>

## **University of Michigan**

<http://orosp.umich.edu/develop-proposal/budget-and-cost-resources>

Texas A&M University-San Antonio

<http://www.tamusa.edu/graduatestudiesandresearch/research/budget/preparing-proposal-budget.html>

**DOES ANYONE HAVE ANY QUESTIONS?**

هل عند أحدكم أية أسئلة؟

**NOW THESE ARE SOME QUESTIONS FOR ALL  
THOSE WHO ATTENDED THIS LECTURE**

الآن هذه بعض الأسئلة لجميع أولئك الذين  
حضرُوا هذه المحاضرة

- Mcq
- Budget to construct case group activity



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