

PMP Bootcamp: Estimating & Acquiring Project Resources – Building Your Project Team & Toolkit

Student Name: _____ Date: _____

Instructions: Once you've planned *how* you'll manage resources, the next steps are to figure out *what* and *how many* resources you need, and then to actually get them on board. This worksheet covers estimating resource requirements and the process of acquiring your project team and other necessary resources.

Core Concept Reminder (from PMBOK 7 & Rita):

- **PMBOK 7th Edition:** The "Planning" and "Project Work" performance domains are key. Estimating supports effective planning, while acquiring resources is essential for executing project work. Principles like "Optimize Risk Responses" (e.g., resource availability is a risk) and "Embrace Adaptability and Resiliency" (e.g., plans may need to adjust based on resource acquisition) are relevant.
 - **Rita Mulcahy's PMP Exam Prep (11th Ed.):** Emphasizes that resource estimating is iterative and tied to other estimates (like cost and duration). Acquiring resources is a critical PM skill, often involving negotiation and working with functional managers.
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Part 1: How Much Do We Need? – Estimating Activity Resources

Purpose: The process of estimating the type and quantities of team resources (people) and physical resources (materials, equipment, supplies, facilities) required to perform project work.

1. **Why is it important to accurately estimate resource requirements *before* trying to acquire them?**
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Inputs (What helps us estimate?):

Many inputs are similar to Plan Resource Management, but now we're getting more granular. Key inputs include:

- **Resource Management Plan:** Provides guidance on *how* to estimate.
- **Scope Baseline (WBS, WBS Dictionary):** Defines the work that needs resources.
- **Activity List & Activity Attributes:** Details the specific tasks requiring resources.
- **Risk Register:** Risks might impact resource needs (e.g., need for specialized skills).
- **Cost Estimates:** May constrain the type/quantity of resources considered.

- **Resource Calendars & EEFs/OPAs:** Information on resource availability, organizational policies.

Methods for Estimating Resource Requirements (Tools & Techniques):

Briefly describe how each method helps estimate what resources are needed:

1. Expert Judgment:

- How it helps: _____

2. Bottom-Up Estimating:

- How it helps: _____
- *Pro:* Generally more accurate. *Con:* Time-consuming.

3. Analogous Estimating:

- How it helps: _____
- *Pro:* Quick. *Con:* Less accurate if projects aren't truly similar.

4. Parametric Estimating:

- How it helps: _____
- *Example:* If 1 developer can code 10 web pages per week, and you have 50 web pages, you'd estimate 5 developer-weeks.

5. Data Analysis (e.g., Alternatives Analysis):

- How it helps: _____

6. Project Management Information System (PMIS):

- How it helps: _____

7. Meetings:

- How it helps: _____

Artifacts (Outputs) of Estimating Resource Requirements:

What key documents/information results from this process?

1. Resource Requirements:

- **What it is:** Identifies the types and quantities of resources required for each work package or activity.
- **Key information it specifies (list two for team resources, two for physical):**

- Team Resource 1: _____
- Team Resource 2: _____
- Physical Resource 1: _____
- Physical Resource 2: _____
(Examples Team: Skill level, number of people, specific roles. Physical: Type of material, quantity of equipment, specifications.)

2. Basis of Estimates:

- **What it is:** Supporting documentation outlining the details used to develop the resource estimates.
 - **Why is this document important, especially if a stakeholder questions your estimates?**
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3. Resource Breakdown Structure (RBS):

- **What it is:** A hierarchical representation of resources by category and type.
 - *Example:* All Resources -> Human Resources -> (Developer, Tester, PM) AND Physical Resources -> (Servers, Software Licenses).
 - **How does an RBS help in managing and tracking resources?**
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4. (Updates to) Project Documents: (e.g., Activity Attributes, Assumption Log, Lessons Learned Register)

Part 2: Getting the Goods – Acquire Resources

Purpose: The process of obtaining team members, facilities, equipment, materials, supplies, and other resources necessary to complete project work.

1. What's the main goal of the Acquire Resources process?

Key Considerations/Challenges in Acquiring Resources:

- **Internal vs. External Resources:** Internal (from within the organization) vs. External (hired, contracted).

- **Negotiation:** Often required, especially with functional managers for internal team members or with vendors for external resources.
- **Pre-assignment:** Sometimes resources are assigned to the project in advance (e.g., named in the charter).
- **Virtual Teams:** Teams that are geographically dispersed.
 - **What is one advantage and one disadvantage of using virtual teams?**
 - Advantage: _____
 - Disadvantage: _____

Inputs (What do we need before acquiring?):

- **Resource Management Plan:** Guides *how* to acquire (e.g., centralized vs. decentralized, internal first).
- **Procurement Management Plan:** If resources are external and require formal procurement.
- **Cost Baseline:** Budget constraints for acquiring resources.
- **Project Schedule:** When resources are needed.
- **Resource Requirements & RBS:** What specific resources are needed.
- **EEFs/OPAs:** Org policies on hiring, existing agreements, marketplace conditions.

Tools & Techniques for Acquiring Resources:

1. **Decision Making (e.g., Multi-criteria Decision Analysis):**
 - How it helps: _____
2. **Interpersonal and Team Skills (especially Negotiation):**
 - Why negotiation is key here: _____
3. **Pre-Assignment:**
 - What it means: _____
4. **Virtual Teams:** (This is more a *type* of team being acquired/formed than a tool, but it's a key consideration here).

Outputs of Acquire Resources:

1. **Physical Resource Assignments:**

- What it means: _____

2. **Project Team Assignments:**

- What it means: _____
- This often includes documenting who is assigned to what role/task.

3. **Resource Calendars:**

- **How are these updated or created during Acquire Resources?**
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4. **Change Requests:** (If unable to secure planned resources, changes to schedule/cost/scope might be needed).

5. **(Updates to) Project Management Plan & Project Documents:** (e.g., Resource Mgt Plan, Cost Baseline, Stakeholder Register, Risk Register).

Bonus: Releasing Resources

While not a separate formal process group, releasing resources appropriately is part of managing them.

- **Why is it important to have a plan for releasing resources when they are no longer needed?**
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Part 3: Scenario & Application

Scenario: Your project needs two senior Java developers for 6 months. Your company has some Java developers, but they are all assigned to other high-priority projects.

1. **Estimating:** When you initially estimated the need for these developers, what information would have been in your "Resource Requirements" document for them?
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2. **Acquiring:**

- a. What are your options for acquiring these developers, considering internal and external possibilities?

- b. If you try to get internal developers, what "Interpersonal and Team Skill" will be crucial when talking to their functional managers? _____

c. If you decide to hire external contractors, which input document becomes very important?

3. **Resource Calendars:** Once you've secured the developers, what will their entries in the project's resource calendars show?
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Key Takeaway: Estimating resource needs accurately provides a solid foundation. Acquiring the right resources at the right time is critical for project execution and often involves negotiation, problem-solving, and adapting to realities.