

Mastering Research Administration

A Complete Guide to the
CRA[®], CPRA[®], and CFRA[®] Exams

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- These multiple-choice questions and the accompanying text were originally developed in 2022 and were reviewed and updated in August 2025. Grant policies, rules, and regulations may change over time. Please consult official sources for the most current information.
- While it is generally considered best practice to avoid negative phrasing and answer choices such as “all of the above” or “none of the above” in standardized multiple-choice questions, these materials were created for training purposes. In some instances, we have intentionally used such formats.

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CHAPTER 3

Cost Sharing

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3.1. Introduction

Cost sharing – also known as matching, cost matching, or cost participation – occurs when part of the cost of the project is paid by an entity other than the primary funding agency. Cost sharing funds may be provided by the recipient (e.g., the recipient university) or a third party (such as a philanthropist or a company).

3.2. Advantages and Disadvantages

There are some benefits to cost sharing, including the recipient entity having “skin in the game” and availability of more funds for the project. However, there are some disadvantages as well. For example, institutions with low endowments may not be able to afford cost sharing and hence be disadvantaged even more. Therefore, some funding opportunities may prohibit cost sharing to avoid creation of an “advantaged class” of universities or research institutions.

3.3. Cost Sharing Ratios

Cost sharing could have any ratio, such as 1:1 or 0.5:1, which is often stipulated in the notice of funding opportunity (NOFO) announcement. For example, the NOFO may state that the federal agency will provide \$1,000,000, with a required cost sharing of 1:1. In this case, the institution (or a third party) will have to provide another \$1,000,000, making the total budget for the project \$2,000,000.

3.4. Types of Costs Sharing

There are three types of cost sharing: mandatory, voluntary committed, and voluntary uncommitted.

3.4.1. Mandatory Cost Sharing

The NOFO requires cost sharing. It must be done; otherwise, the project will not be funded. The cost sharing components must be written into the proposal, which becomes binding and subject to audit. Therefore, after the project is funded, all records for cost sharing must be kept.

3.4.2. Voluntary Committed Cost Sharing

This is not required by the NOFO. However, if it written into the proposal, it would become binding and again subject to audit. Voluntary committed cost sharing cannot be used as criteria for higher scores during evaluation of the proposal sent to the federal government. Because voluntary committed cost sharing creates a burden, while it does not offer an advantage, most institutions strongly discourage, or even prohibit, voluntary committed cost sharing. An example of voluntary cost sharing is when two of the key personnel write into the grant that they will be working 10% each on the grant, without requiring salary support. They may not even know that this “voluntary commitment” is considered cost sharing and hence subject to audit.

3.4.3. Voluntary Uncommitted Cost Sharing

This is when the recipient institution contributes goods or services to the project, but does not charge the project, and such the contribution is neither required by the NOFO, nor written into the proposal. For example, if the PI writes 10% of his time into the proposal and requests only 10% of his salary and fringe, but after the proposal is funded, he contributes 15% of his time to this project, he has committed 5% (15% - 10%) of his time in a voluntary uncommitted form. Because this contribution was not written into the proposal, it does not create a commitment and is not subject to audit.

The table below compares these three types of cost sharing.

Characteristic	Mandatory Cost Sharing	Voluntary Committed Cost Sharing	Voluntary Uncommitted Cost Sharing
Required by the NOFO	Yes	No	No
Written into the proposal	Yes	Yes	No
The recipient must provide the funds	Yes	Yes	No
Needs accounting / subject to audit	Yes	Yes	No

3.5. What is Allowable, or Not, for Cost Sharing?

For items to be allowable for cost sharing, they must:

- Be allocable to the project, i.e., they need to serve the needs of the project and should not be disallowed by the NOFO. For example, if the NOFO does not allow for international travel, contributing funds for international travel by the recipient will not be allowable as a cost share item.
- Be paid by the recipient or a third party. If the item is paid by another federal grant, it cannot be used for cost sharing. For example, one cannot claim the use of a piece of equipment, previously purchased by another federal grant, for cost sharing against a new federal grant.
- Reduced F&A costs may or may not be allowable for cost share. In principle, it is allowable only with prior approval of the funding agency. However, in the Research Terms and Conditions (RTC) Overlay, many federal agencies have waived the requirement for prior approval.

More information about allowability of cost share, and the appropriate cost estimates for cost share, can be found in the Uniform Guidance ([2 CFR 200.306](#)).

3.6. Summary

Cost sharing, also known as matching, is intended to make the recipient institution more committed to the project and to extend the federal dollars. However, it causes a significant burden on the institution and the PI as well, and it may create inequity. If the institution considers cost sharing for a project, it must be ready to provide the requisite funds and to keep a good record of cost sharing that may be used for audit.

3.7. Practice Questions

1. In the context of research, cost sharing means:
 - a. Two or more funding agencies each provide part of the funds for a research project.
 - b. Two or more universities each provide part of the funds for a research project.
 - c. Part of the costs for a research project is borne by sources other than the primary funding agency.
 - d. Part of the funds received from the funding agency are passed to a subaward recipient.
2. What is another name for cost sharing?
 - a. Cost accounting
 - b. Fringe benefits
 - c. Facilities and administrative costs
 - d. Matching
3. Which of the following is NOT another name for cost sharing?
 - a. Matching
 - b. Cost matching
 - c. Cost allocation
 - d. Cost participation
4. Which one is NOT a type of cost sharing?
 - a. Mandatory
 - b. Voluntary committed
 - c. Voluntary uncommitted
 - d. Terminal
5. Mandatory cost sharing is required by the _____ and _____ need to be accounted for.
 - a. Funding agency, does
 - b. Funding agency, does not
 - c. The recipient institution, does
 - d. The recipient institution, does not

6. Which types of cost sharing need to be accounted for and kept for potential audits?
- Mandatory, voluntary committed
 - Mandatory, voluntary uncommitted
 - Voluntary committed, voluntary uncommitted
 - All of the above
7. Items included as cost share must be:
- Allocable to the project and reasonable
 - Allowable under cost principles
 - Verifiable from the non-federal entity records
 - All of the above
8. Which of the following CANNOT be used for cost sharing for federal grants?
- Faculty time on the project, if salary for that time is paid by the university
 - Graduate student on the project, if wages for that time are paid by the university
 - Equipment used for that project, if the equipment was purchased using philanthropic funds
 - Equipment used for that project, if the equipment was purchased using previous federal funds
9. Which of the following may be used for cost sharing for federal grants?
- Faculty salary paid from another grant
 - Physical space, especially if that space is included in F&A calculations
 - Equipment paid for using other federal grants
 - Funds from a philanthropic organization
10. Voluntary committed cost sharing _____ need to be accounted for and is typically _____ by most recipient universities.
- Does, encouraged
 - Does not, encouraged
 - Does, discouraged or banned
 - Does not, discouraged or banned

11. A faculty member budgets for 15% of his effort on a grant and is paid only that much after the grant is funded. However, he spends 30% of his time on the grant.

This is:

- a. Mandatory cost share
- b. Voluntary committed cost share
- c. Voluntary uncommitted cost share
- d. Not a cost share

12. An applicant institution writes in their proposal that the Dean will spend 10% of his time on the grant but no salary is requested for the Dean. There was no cost share requirement in the funding opportunity announcement. This is:

- a. Mandatory cost share
- b. Voluntary committed cost share
- c. Voluntary uncommitted cost share
- d. Not a cost share

13. An applicant institution writes in their grant that they will donate a laptop to each of the trainees. There was no cost share requirement in the funding opportunity announcement. This is:

- a. Mandatory cost share
- b. Voluntary committed cost share
- c. Voluntary uncommitted cost share
- d. Not cost share

14. A federal funding opportunity announcement requires 50% cost share on a grant.

The faculty applicant identifies a company who provides a commitment to pay for this cost share. This is:

- a. Mandatory cost share
- b. Voluntary committed cost share
- c. Voluntary uncommitted cost share
- d. Illegal, as the university should pay, not a third party

15. Unrecovered indirect cost is the difference between the amount of indirect cost that_____ and may be considered as matching_____.
- a. Could have been charged under the negotiated rate vs. what is charged, only with the permission of the funding agency.
 - b. Could have been charged under the negotiated rate vs. what is actually charged, rate, at the discretion of the of the applicant institution.
 - c. Is charged for off-campus vs. on-campus projects, only with the permission of the funding agency.
 - d. Is charged for off-campus vs. on-campus projects, at the discretion of the of applicant institution.
16. Volunteer work of third-party consultants may be used for cost sharing. The rate of such services shall be consistent with_____.
- a. Similar work at the applicant NFE.
 - b. Similar work done at the third-party institution.
 - c. Executive Level I.
 - d. Executive Level II.
17. When similar work is not done at the applicant NFE, volunteer work of third-party consultants counted as cost sharing should be valued at_____. Fringe benefits_____ be counted.
- a. Executive Level I, may
 - b. Executive Level I, may not
 - c. Fair market value, may
 - d. Fair market value, may not
18. When a third-party organization furnishes the services of an employee, these services must be valued at _____, and fringe benefits_____ be added.
- a. Salary at the third-party institution, may
 - b. Salary at the third-party institution, may not
 - c. Executive Level I, may
 - d. Executive Level II, may not

19. Per Uniform Guidance §200.306, items included in cost share must be:
- Verifiable from the NFE's records
 - Not included in cost share for another federal grant
 - Necessary and reasonable to accomplish the goals of the projects
 - All the above
20. International travel is unallowable on a grant. The university provides cost share, including \$8,000 toward an international travel. This is ____ as cost share ____.
- Allowable, as it complements what the grant provides.
 - Allowable, as it is the university money, not government money.
 - Unallowable, as this is an unallowable item on the grant itself.
 - Unallowable, as the cost of travel is not reasonable.
21. Federal government provides a grant to a university, which requires cost sharing. A third party provides a piece of equipment, which may be used to accomplish some of the objectives of the study funded by the grant. This ____ be considered cost sharing ____.
- Cannot, because this equipment is not given by the university.
 - Cannot, because equipment is not an item for cost share.
 - Can, but only the depreciation or fair rental can be counted toward cost sharing.
 - Can, and the entire price of the equipment counts toward cost sharing.
22. Federal government provides a grant to a university to enhance its biomedical research infrastructure. Allowable items include purchasing equipment, renovation, etc., that enhance the overall infrastructure. The grant requires cost sharing. A third party provides a piece of equipment, which could be used for many projects. This ____ be considered cost sharing ____.
- Cannot, because this equipment is not given by the university.
 - Cannot, because equipment is not an item for cost share.
 - Can, but only the depreciation or fair rental can be counted toward cost sharing.
 - Can, and the entire price of the equipment counts toward cost sharing.

23. The value of land and buildings as cost share will be determined by_____ based on fair market value.
- The Chief Financial Officer of the University
 - The person in the university who supervises all construction-related matters
 - An independent appraiser
 - Any of the above
24. Federal government provides up to \$120K for a grant and requires 25% cost sharing by the recipient institution. Assuming that there is no program income or overmatching, the maximum cost share amount is _____ and the maximum total project funds is:
- \$30K, \$120K
 - \$30K, \$150K
 - \$40K, \$120K
 - \$40K, \$160K
25. All of the following are problematic about cost sharing EXCEPT one. Cost sharing:
- May exhaust some of the recipient's financial resources.
 - May be difficult to account for properly, especially voluntary committed cost sharing.
 - May reduce the F&A rate in the future.
 - Reduce the total amount of funds for the project.
26. Which of the following is a general problem about cost sharing, for which some funding agencies may prohibit cost sharing?
- Accounting issues
 - Social justice
 - Total funding going to the project
 - The recipient having a skin in the game

27. A faculty member paid on a federal grant is required to spend 50% of her time toward that project (and she complies). However, the grant pays for only 20% of her time. In this case, when effort is being certified, the faculty member has to certify ____ and cost share is ____ of the faculty member's salary and fringe.
- a. 20%, 30%
 - b. 20%, 50%
 - c. 50%, 20%
 - d. 50%, 30%
28. Per Uniform Guidance, waiver of indirect costs _____ acceptable as cost share.
- a. Is always
 - b. Is never
 - c. Needs prior approval from the funding agency to be
 - d. Need prior approval from the non-federal entity Chief Financial Officer to be
29. Pre-approval for use of unrecovered indirect costs for cost share _____ required for NIH awards and _____ required for DoE awards.
- a. Is, is
 - b. Is, is not
 - c. Is not, is
 - d. Is not, is not
30. For NSF Major Instrumentation Awards (NSF MRI), when cost share is required, it will be _____ of the total costs.
- a. 10%
 - b. 25%
 - c. 30%
 - d. 50%

3.8. Answers to Practice Questions

1. C
2. D
3. C Cost allocation is a different concept: it's about distributing costs across projects, programs, or departments.
4. D
5. A
6. A
7. D
8. D Federal dollars can't be used as match for another federal grant.
9. D A and C are incorrect, because the funds come from another federal project. B is incorrect, because space has already been charged to F&A, and this will be double charging the government.
10. C
11. C
12. B
13. B
14. A
15. A Such permission may be found in the NOFO or in the RTC Overlay.
16. A The primary rate will be the rate of work done at the recipient institution. This is to avoid inflating rates, when doing cost sharing.
17. C If similar work is not done at the institution receiving the funds, fair market value must be used. However, such valuation must be properly documented and kept for potential audits.

18. A “When a third-party organization furnishes the services of an employee, these services must be valued at the employee's regular rate of pay plus an amount of fringe benefits that is reasonable, necessary, allocable, and otherwise allowable”

Reference: <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.306> (last accessed August 21, 2025).

19. D

20. C Cost share must follow same rules as direct costs.

21. C Note that the full price of this equipment is not used for this project; only the depreciation costs is allocable to this project.

22. D In this case, the entire value of the equipment can be used, because the equipment, in its entirety, will be used to enhance the research infrastructure of the university.

23. C

24. B 25% of sponsor funds = \$30K; total = \$120K + \$30K = \$150K.

25. D

26. B

27. D Certifies total 50% effort, with 30% unpaid = cost share.

28. C

29. D Both agencies have provided waiver in the RTC Overlay.

30. C This is the statutory cost share for NSF MRI. “Cost-sharing of precisely 30% of the total project cost is required for Ph.D.-granting institutions of higher education and for non-degree-granting organizations.”

Reference: <https://www.nsf.gov/funding/opportunities/mri-major-research-instrumentation-program/nsf15-504/solicitation> (last accessed August 21, 2025).