

DEPARTMENT OF EDUCATION**2 CFR Part 3474**

RIN 1894-AA07

[Docket ID ED-2015-OS-0105]

Open Licensing Requirement for Competitive Grant Programs**AGENCY:** Office of the Secretary, Department of Education.**ACTION:** Final regulations.

SUMMARY: The Secretary amends the regulations of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in order to require, subject to certain categorical exceptions and case-by-case exceptions, that Department grantees awarded competitive grant funds openly license to the public copyrightable grant deliverables created with Department grant funds.

DATES: These regulations are effective March 20, 2017.

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SUPPLEMENTARY INFORMATION:**Background and Summary of This Regulatory Action**

On November 3, 2015, the Secretary published a notice of proposed rulemaking (NPRM) in the **Federal Register** (80 FR 67672) that would amend regulations regarding the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. Under the amendments proposed in the NPRM, the Department would require, with certain categorical exceptions and the ability to grant case-by-case exceptions, that entities receiving Department funds under a competitive grant program openly license all copyrightable intellectual property created with those funds. These final regulations adopt the proposed amendments with modifications that we discuss in greater detail in these final regulations.

Under the Department's current regulations, title to intellectual property, including copyright, acquired under Department grant funds vests in the grantee. At the same time, for any work

subject to copyright that was developed or for which ownership was acquired under a grant award, the Department reserves a royalty-free, non-exclusive, and irrevocable right to reproduce, publish, or otherwise use for Federal purposes, and to authorize others to do so (referred to as a "Federal purpose license"). This license allows the government the ability to authorize others to use work funded by Department grants.

Grantees under the Department's competitive grant programs create a number of copyrightable works using Department competitive grant funds that have significant benefit for students, parents, teachers, school districts, States, institutions of higher education, and the public overall. These copyrightable works are wide ranging in nature and include instructional materials, personalized learning delivery systems, assessment systems, language tools, and teacher professional development training modules, just to name a few. The Department's grantees creating these works include State educational agencies (SEAs), local educational agencies (LEAs), institutions of higher education (IHEs), and non-profit organizations and while the works are created under a specific grant program and therefore may target a specific school or group of students, the resources are such that other education stakeholders would significantly benefit from being able to access them, reuse them, and in some cases, modify them to address their needs and goals.

It is the Department's experience, however, that copyrightable works created under competitive grants made by the Department generally have not been disseminated widely to the public. This is the case despite the existence of the Federal purpose license and efforts by the Department and grantees to proactively make them available. Although the Department provides individualized technical assistance and actively works with all grantees on dissemination planning, we have found that many education stakeholders and other members of the public are generally not aware of the educational resources created as a result of the Department's competitive grant programs. We believe this is because the education resources often are created and disseminated locally or disseminated to limited audiences by grantees in presentations at research conferences, through professional associations, or by commercial mechanisms that are not easily accessed by the general public or to a wider group of stakeholders. Even when the

resources are known to exist, stakeholders and the public are not sure how to access them, what usage rights or permissions are necessary to use them, or how to obtain those rights or permissions. Accordingly, while the Department's Federal purpose license does allow for the public to obtain a copy of these works from the Department, this has rarely occurred.

We believe that the open licensing regulation we are adopting here will address these key problems. Through an open license, grantees under the Department's competitive grant programs will explicitly give permission to the public to access, reproduce, publicly perform, publicly display, and distribute the copyrightable work; prepare derivative works, as defined in the Copyright Act, 17 U.S.C. 101, and reproduce, publicly perform, publicly display and distribute those derivative works; and otherwise use the copyrightable work, created in whole or in part with competitive grant funds provided by the Department, provided that in all such instances attribution is given to the copyright holder. Copyrightable grant deliverables, or deliverables, are final versions of a work developed to carry out the purpose of the grant, as specified in the grant announcement (*i.e.*, notice inviting applications or application package). The requirement will apply both to the deliverables themselves and any final version of program support materials necessary to the use of the deliverables. We believe that this will result in significantly enhanced dissemination of deliverables created with Department competitive grant funds and provide education stakeholders and members of the public with a simpler and more transparent framework to access, use, and possibly modify these deliverables for the benefit of their education communities.

The approach the Department is taking with this rule is limited in scope. It will apply only to grantees receiving Department competitive grant funds, which constitutes approximately 10 percent of the Department's total discretionary funding. Within that category of grants, we anticipate approximately 60 percent would potentially be subject to the rule. The rule will not apply to grants that provide funding for general operating expenses; grants that provide supports to individuals (*e.g.*, scholarships, fellowships); grant deliverables that are jointly funded by the Department and another Federal agency if the other Federal agency does not require the open licensing of its grant deliverables for the relevant grant program;

copyrightable works created by the grantee or subgrantee that are not created with Department funds; any copyrightable work incorporated in the grant deliverable that is owned by a party other than the grantee or subgrantee, unless the grantee or subgrantee has acquired the right to provide such a license in that work; peer-reviewed scholarly publications that arise from any scientific research funded, either fully or partially, from grants awarded by the Department; or grants under the Department's Ready to Learn Television Program. Grantees receiving funds under the Department's formula grant programs will not be subject to the rule. Further, the rule will not apply to a grantee for which compliance with the rule would conflict with, or materially undermine the ability to protect or enforce, other intellectual property rights or obligations of the grantee or subgrantee, in existence or under development, including those rights provided under 15 U.S.C. 1051, *et seq.*, 18 U.S.C. 1831–1839, and 35 U.S.C. 200, *et seq.* Similarly, the rule does not alter any applicable rights in the grant deliverable available under 17 U.S.C. 106A, 203 or 1202, 15 U.S.C. 1051, *et seq.*, or State law.

The rule also provides for the Department to consider individual grantee requests for exception to the open licensing requirement. We note in the rule some examples of situations that may be appropriate for an exception to the open licensing requirement, such as where the Secretary has determined that the grantee or subgrantee's dissemination plan would likely achieve meaningful dissemination equivalent to or greater than the dissemination likely to be achieved through the open licensing requirement. Similarly, we provide the example of a situation in which the open licensing requirement would impede the grantee's ability to form the required partnerships necessary to carry out the purpose of the grant. The list of examples in the rule is not exhaustive and is intended to indicate the types of situations in which an exception may be appropriate depending on the specific circumstances.

In designing competitions that would not fall within any of the categorical exceptions specified in the rule, the Department will also consider whether to make an exception for a grant program for a particular year's competition. In that regard, the Department will consider whether the open licensing requirement conflicts with the statutory purpose of the program and whether harm caused to

the program by implementing the open licensing requirement would outweigh its benefit. In granting exceptions, we may consider factors such as the following: (1) Possible negative effect on the statutory purpose of the program if an open licensing requirement is applied; (2) Possible barriers to the intended benefits of broad dissemination if an open licensing requirement is applied, for example, if the broadest possible dissemination can be achieved only through exclusive private entity partnerships; (3) The public need for, or benefit from, the opportunity to access or use the copyrightable grant deliverable given the context of the particular program; and (4) Other economic considerations, such as an undue financial hardship on the grantees to implement the rule. The Secretary's designee(s) will make final decisions about whether a program-level exception is granted. In each Notice Inviting Applications for a competitive grant program, the Department will clearly communicate whether or not the program is subject to the open licensing requirement or has received an exception.

The Department recognizes that implementation of these regulations represents a change from current practice and therefore plans to take a phased approach to implementing the rule for new competitive grants announced in FY 2017 and will fully implement it for all applicable competitive grant programs across the Department in FY 2018. This approach will provide us additional opportunities to take steps such as preparing administrative procedures regarding the consideration of requests for exceptions and providing relevant staff training. In FY 2017, each new competitive grant competition announcement will clearly indicate whether this rule will apply so that eligible applicants can make informed decisions regarding their participation in the competition.

Public Comment: In the NPRM we published on November 3, 2015, we proposed to amend regulations regarding the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in order to require that all Department grantees awarded competitive grant funds openly license to the public copyrightable intellectual property created with Department grant funds. The NPRM established a December 3, 2015, deadline for the submission of written comments. To ensure that all interested parties were provided sufficient opportunity to submit comments, we published a notice in the **Federal Register** (80 FR 74715) on

November 30, 2015, which extended the public comment period to December 18, 2015.

In response to our invitation in the NPRM, 146 parties submitted comments. We group major issues according to subject and by comments submitted in response to the five additional questions we posed. Generally, we do not address technical and other minor changes or suggested changes the Secretary is not legally authorized to make under applicable statutory authority. In some cases, comments addressed issues beyond the scope of the proposed regulations. Although we appreciate commenters' concerns for broader issues affecting open access, because those comments are beyond the scope of this regulatory action, we do not discuss them here.

Analysis of Comments and Changes: An analysis of the comments and changes in the regulations since publication of the NPRM follows. We note that we have renumbered some of the paragraphs from the proposed rule in this final rule. As a result, some of the provisions in the proposed rule have different paragraph numbers in this final rule.

General Comments

Comments: The Department received many positive comments regarding the proposed regulations. These commenters praised the Department for taking steps to provide broader access for taxpayers to deliverables produced with Department grant funds.

Discussion: We appreciate the commenters' support.

Changes: None.

Request for Extension of the Comment Period

Comments: We received several comments requesting that the Department extend the public comment period for the NPRM, indicating that additional time would be helpful to analyze and respond to the Department's proposals.

Discussion: The Department agreed that additional time for public comment would be helpful and extended the comment period by an additional 15 days. We believe that 45 days provided the public a meaningful opportunity to comment on the proposed rule, and this is supported by the complex and thoughtful comments we received.

Changes: None.

Legal Issues

Comments: One commenter requested clarification regarding the basis for the determination that this regulatory action

is significant under Executive Order 12866.

Discussion: This regulatory action is economically significant under section 3(f)(1) of Executive Order 12866 as we estimate that it will have an annual effect on the economy of more than \$100 million. We explain this determination further in the *Regulatory Impact Analysis* section of these regulations.

Changes: None.

Comments: Several commenters stated that the Department has not complied with Executive Order (EO) 13563, which requires agencies to base all regulatory frameworks on the best available science. As an example, one commenter noted that the impact analysis does not cite empirical data or evidence from research and is instead based on speculative statements.

Discussion: The Department has provided further analysis of the economic impacts of the regulations in accordance with both Executive Order 13563 and Executive Order 12866 in the *Regulatory Impact Analysis* section of these regulations. However, we note that Section 1 of EO 13563 reiterates principles established by EO 12866 and asks agencies “to use the best available techniques to quantify anticipated present and future costs as accurately as possible, such as identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes.” Section 1 also recognizes that in some cases, careful and accurate quantification may not be possible and allows agencies to consider values including equity, human dignity, fairness, and distributive impacts that are difficult or impossible to quantify. Section 4 requires agencies to identify and consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public. In this case, our grantees retain the ability to choose to apply to receive funding through our grant competitions.

Each year, the Department funds a wide variety of competitive grant programs that support a diverse array of grant-funded copyrightable works. Conducting an empirical analysis of the exact costs and benefits of this final rule would require data not historically collected in the course of the administration of Department grants. Consistent with Section 1 of EO 13563, in our analysis of the rule, the Department considered qualitative values, including, transparency, equity, and distributive impacts, and recognized that some benefits and costs are difficult to quantify.

Changes: None.

Comments: A few commenters asserted that the NPRM ignores the statutory mandate of the Information Quality Act (IQA) (also commonly referred to as the Data Quality Act, such as by the commenter). Specifically, one commenter stated that the NPRM lacks information indicating that the Department has taken necessary steps to ensure that the disseminated information is reliable, in accordance with the Office of Management and Budget’s (OMB) IQA guidelines. The commenter indicated that to the extent that direct competitive grant funding is a mechanism of the Department to create and disseminate information, the Department has not taken those steps.

Discussion: The Department disagrees with the commenters’ interpretation of the IQA and the assertion that the Department is not in compliance with the requirements of the IQA. Although the comment mentioned OMB’s Data Quality Act guidelines, the applicable guidelines here are the Department’s Information Quality Act (IQA) guidelines, which were issued pursuant to the direction of OMB’s IQA guidelines and the IQA. The IQA is a procedural statute that requires the Department to issue guidelines: (1) Ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by the agency, and (2) to establish administrative mechanisms allowing affected persons to seek and obtain correction of information maintained and disseminated by the agency that does not comply with the guidelines. In addition, the IQA requires the Department to send reports to the Director of OMB periodically.

The Department has developed the guidelines required under the IQA, which are available at: <http://www2.ed.gov/policy/gen/guid/iq/infoqualguide.pdf>. Notably, those guidelines provide that an affected person who does not believe the information the Department disseminates complies with the guidelines must provide, among other things: (1) A detailed description of the information that the requester believes does not comply with the Department’s or OMB’s guidelines; and (2) an explanation of the reason(s) that the information should be corrected (*i.e.*, describe clearly and specifically the elements of the information quality guidelines that were not followed). We note that these guidelines do not govern all information of the Department, nor do they cover all information disseminated by the Department. The IQA guidelines cover information in

four categories that is disseminated by the Department and subject to the Paperwork Reduction Act (44 U.S.C. 3502(1)): (1) Information about education programs; (2) research studies and program evaluation information; (3) administrative and program data; and (4) statistical data. As a general matter, these guidelines do not cover materials created through the support of competitive grants, research findings, or other information published by grantees.

We note that the IQA guidelines do provide a procedure for the public to register complaints to the Department for applicable information covered by the IQA. According to these procedures, any member of the public may provide a detailed explanation of the specific data being sought or the specific elements of the guidelines that it believes we have not followed. If the commenter had provided this information we could have attempted to either provide this data in the final rule or explain why the data is unavailable to us. If the commenter wishes to submit another request under our IQA guidelines, in compliance with the procedures those guidelines set out, we would be happy to review such a request.

Changes: None.

Comments: Several commenters asserted that the proposed regulations conflict with the Patent and Trademark Law Amendments Act, also known as the Bayh-Dole Act (Pub. L. 96–517, 35 U.S.C. 200 *et seq.*, which covers the intellectual property rights for patentable inventions resulting from Federal funding, as well as E.O. 12591. Many of these commenters questioned whether the Department was aware that 35 U.S.C. 212 provides to institutions the rights for copyrightable intellectual property or whether the Department has the legal authority to require an open license under the provisions of that section.

Commenters citing these conflicts note specifically that computer software source code can be both patentable and copyrightable and that under the Bayh-Dole Act, inventors, rather than the Federal government, are entitled to the title of the patents. These commenters suggested that further clarification of rights is necessary in order to avoid both confusion and litigation. One commenter noted that the proposed requirement to apply an open license to computer software source code is overly broad and could potentially cover all patentable inventions, trade secrets, or other intangible rights.

Other commenters who supported the proposed regulation stated that the

proposed open licensing requirement does not present a conflict with the Bayh-Dole Act, since the Bayh-Dole Act applies only to patentable inventions and not to copyrightable works. In the case of computer software, these commenters stated that for the subset of software that is considered patentable, the open licensing requirement does not prevent the inventor from also seeking patent protection under the legal conditions established by the Bayh-Dole Act.

Discussion: We appreciate the commenters raising these issues and agree that further clarification is necessary as to the rule's scope and application. The Department notes the distinction between copyrightable works, patentable inventions, and information that may be protected as trade secrets under applicable laws. The Department further acknowledges that products such as computer software may contain elements that would be protected under copyright laws, patent laws, and trade secret laws, giving rise to commenters' concerns. The Department did not intend that this regulation would interfere with other intellectual property rights of grantees, including the rights to protect trade secrets and to obtain patent protection on inventions. Thus, we have revised the rule to clarify this issue.

Changes: We have revised § 3474.20(d)(1)(viii) to expressly provide that the rule does not apply to grantees if compliance with the rule would conflict with, or materially undermine the ability to protect or enforce, other intellectual property rights or obligations of the grantee or subgrantee, in existence or under development, including those provided under 15 U.S.C. 1051, *et seq.*, 18 U.S.C. 1831–1839, and 35 U.S.C. 200, *et seq.*

Comment: Several commenters raised concerns that the proposed regulation contradicts the purpose of the Small Business Innovation Research (SBIR) program. These commenters noted that the stated purpose of the SBIR program is to encourage domestic small businesses to commercialize research-based innovations and that loss of exclusive copyright would contradict this purpose. Similarly, commenters also note that the proposed regulation would conflict with SBIR program directives issued by the Small Business Administration. Other commenters urged the Department to provide an exemption to the SBIR and Small Business Technology Transfer (STTR) program from this requirement.

Discussion: We note that the Department's SBIR program is currently awarded through contract competition

rather than grant competition. As a result, SBIR operates under the regulations as described in the Federal Acquisition Regulations at 48 CFR parts 1–99 and Executive Order 13329 rather than 2 CFR part 3474. The Department's SBIR program, therefore, is not currently covered by 2 CFR part 3474 of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards and would not be subject to this final rule. The SBIR program is established under the Small Business Innovation Development Act of 1982 (Pub. L. 97–219) and operates according the Small Business Administration Policy Directives found at: https://www.sbir.gov/sites/default/files/sbir_pd_with_1-8-14_amendments_2-24-14.pdf. Additional information about the regulations, legislation, and guidance for SBIR can be found at: <http://www2.ed.gov/programs/sbir/legislation.html>.

Changes: None.

Comment: Many commenters suggested that any licensing requirements should align with current requirements used by other Federal agencies. Many commenters who supported the open licensing requirement recommended that the Department consider similar requirements implemented at the U.S. Department of Labor, the U.S. Department of State, and the United States Agency for International Development (USAID). These commenters noted that at these agencies, the open licensing requirement for grant programs and contracts specifically requires Creative Commons¹ licenses. Some commenters suggested that the regulations be aligned with current practice at the National Science Foundation.

Discussion: In developing these final regulations, the Department did take into account the experiences of other Federal agencies with open licensing. Specifically, we (1) considered the Office of Management and Budget's (OMB) Open Government Directive in M–13–13 Memorandum for Heads of Executive Departments and Agencies on Open Data Policy, which describes the Administration's intent to promote use of open licenses, in consultation with Project Open Data, the online, public repository intended to promote the continual improvement of the Open Data Policy, that allow minimal restrictions on copying, publishing,

¹ Creative Commons is a global non-profit organization whose mission is to promote sharing and reuse through free legal tools. The organization is most well-known for public copyright licenses known as Creative Commons licenses.

distributing, transmitting, adapting, or otherwise using the information for non-commercial or for commercial purpose; and (2) consulted with other grant-making agencies through an inter-agency working group on open education to better understand their grant-making processes and implementation best practices. These final regulations are based on our review of these issues and reflect our determination as to how best to tailor an open licensing requirement to the needs of our grant programs and grantees.

We also note that the Department regularly engages our colleagues at other Federal agencies to explore the use of openly licensed resources in advancing the goals of our programs. In June 2016, the Department, in collaboration with NSF and the Institute for Museum and Library Services (IMLS), convened an Open Educational Resources (OER) Research Meeting, attended by representatives from #GoOpen States and Districts, leading principal investigators of projects funded by NSF, IMLS, and the Department's Institute of Education Sciences (IES) programs, as well as with other knowledgeable education stakeholders and researchers. The convening was designed around articulating key OER research issues, identifying OER research infrastructure needs, and exploring potential partnerships to pursue research and development projects. A separate, more detailed discussion regarding the suggestion to use Creative Commons licenses is below.

Changes: None.

Comment: Several commenters stated that this rule is unnecessary because, under current policy, the Department can already disseminate works created through grant funds. These commenters cite the current policy in 2 CFR 200.315(b) that provides the Federal awarding agency with a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so.

Discussion: As we discuss elsewhere in these final regulations, in practice, the Department has exercised the Federal purpose license described in 2 CFR 200.315(b), and previously established in 34 CFR parts 74 and 80, only in rare cases and in those instances the license did not allow the public to access resources directly without first contacting the Department. This regulation should enable deliverables produced under our competitive grants to be more readily available to the public. As discussed earlier, we are concerned that the current policy has

not allowed for broad or efficient dissemination of copyrightable works.

Changes: None.

Comment: One commenter noted language in the preamble to the proposed rule where the commenter thought that, in order to ensure an open license, the grantee must not be allowed to copyright works resulting from Department funding. The commenter noted that, in fact, licenses of any kind are only needed when one party has legal rights, such as those established by copyright.

Discussion: We agree that the explanation in the preamble of the NPRM could have been clearer and appreciate the opportunity to clarify these issues. The NPRM did not propose to amend the Copyright Act of 1976 (17 U.S.C. 101 *et seq.*), which would be outside of the scope of the Department's authority. The legal framework for open licenses is built on the foundation established by the Copyright Act, which automatically gives protection to original works of authorship at the moment they are fixed in any tangible medium of expression and provides certain exclusive rights to authors of these works, 17 U.S.C. 106. In addition to those exclusive rights, the Copyright Act and other provisions of federal and state law provide various elements of what are known internationally as "moral rights."² In addition, the Copyright Act provides for termination rights, *i.e.*, the right of the author or her statutorily designated successors in interest to terminate a copyright transfer or license during a five-year period beginning several decades after the date of the grant or of first publication of the work. Thus, in the final rule, we clarify that grantees will retain ownership of their respective copyrights to their original works of authorship but, by accepting Department grant funds, agree to license to the public the right to exercise their exclusive rights. We also clarify that the rule does not alter any applicable rights in the grant deliverable available under 17 U.S.C. 106A, 203 or 1202, 15 U.S.C. 1051, *et seq.*, or State law. We have revised the regulatory text to make these clarifications.

We note that the proposed rule excluded current 2 CFR 200.315(b) from

the Department's regulations. We proposed this exception to avoid any inconsistency between the proposed open licensing rule and the provision in 2 CFR 200.315(b) recognizing a copyright to material developed with grant funds. In light of the comment we received, however, we recognize that there is not an inconsistency and therefore, there is no need to exclude 2 CFR 200.315(b) from our regulations. As the commenter pointed out, a grantee must hold a copyright to any material to which it provides a copyright license. Indeed, central to the functionality of this final rule is the existence of provisions that give title for intangible property created with Federal support to the creators that is provided in 2 CFR 200.315(a) and (b).

Changes: In final 2 CFR 3474.20, we have removed the exception of § 200.315(b) from the Department's regulations. We also removed proposed § 3474.20(d), which retains the Federal government's rights to copyrighted material, because the substance of that paragraph is already contained in § 200.315(b). Additionally, we have added an exception to § 3474.20(d)(2) to expressly provide that the rule does not alter any applicable rights in the grant deliverable available under 17 U.S.C. 106A, 203 or 1202, 15 U.S.C. 1051, *et seq.*, or State law.

Scope and Definitions

Comment: None.

Discussion: For the purposes of this regulatory action, there is no substantive difference between "direct competitive discretionary grant" and "competitive grant." We have selected the shorter term for the sake of clarity and to enable better understanding in the field.

Changes: Throughout this rule, we replaced "direct competitive discretionary grant" with "competitive grant."

Comment: One commenter noted that the term "grantee" is not defined in 2 CFR part 200 and that its use in the NPRM could include both for-profit and not-for-profit entities. The commenter made several observations related to the applicability of the proposed rule for different types of grantees and suggested that the Department separately review impacts on for-profit and not-for-profit entities and specifically questioned whether the NPRM should apply to for-profit entities.

Discussion: Although the term "grantee" is not defined in 2 CFR part 200, our regulations at 34 CFR 77.1 define the term "grantee." As defined in 77.1, a "grantee" includes any entity that receives a grant, which can include both for-profit and not-for-profit

entities. Applying this rule to for-profit entities is consistent with 2 CFR 200.101(c), which provides that a Federal awarding agency may apply the Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards regulations to for-profit entities unless there is a conflict with international obligations. We note that, in general, the eligibility requirements for our programs contained in statute limit eligibility to governmental entities and not-for-profit entities and for-profit entities are only eligible for our competitive grant funds in rare instances. Thus, the suggestion to review the impact of this rule on each type of grantee (not-for-profit and for-profit entities) separately is unnecessary.

In reviewing this issue, we realized that the proposed rule was not clear on whether the open licensing requirement would apply to subgrantees. We believe that it would and have revised the rule to make clear that it applies to the subgrantees of competitive grantees that are subject to this rule.

Changes: We have added "subgrantee" to various paragraphs throughout the rule.

Comment: One commenter requested a definition of the meaning of "Federal purpose," as used in the NPRM.

Discussion: Because we removed the proposed exception to 2 CFR 200.315(b), this final rule does not use the term "Federal purpose." Therefore, there is no need to elaborate on the meaning of this term for the purposes of this final rule.

Changes: None.

Comment: One commenter requested a more precise definition of Open Education Resources (OER). This commenter stated that the broad definition provided in the NPRM of openly licensed educational resources could lead to confusion on usage rights.

Discussion: It is important to note that for the purposes of this regulation, we do not use the term OER. Instead, we are requiring that an open license be applied to all grant deliverables, including final versions of program support materials that are necessary to the use of the deliverables, developed to carry out the purpose of the grant, that are created by Department grantees or subgrantees, wholly or in part with Department competitive grant funds. A subset of the resources that may be required to be openly licensed will meet the common definition of OER, but this rule is not limited to only OER. Furthermore, we believe that the education-focused policy reflected in these final regulations establishes clearly the conditions of an open

²Moral rights include the rights "(1) to claim authorship of their works ('the right of paternity'); and (2) to object to distortion, mutilation or other modification of their works, or other derogatory action with respect thereto, that would prejudice their honor or reputation (the 'right of integrity')." S. Rep. No. 100-352 at 9 (1988); see Berne Convention for the Protection of Literary and Artistic Works, Art. 6bis. The sources for such rights under U.S. law include various provisions of the Copyright Act and Lanham Act, and various state laws. S. Rep. No. 100-352 at 9.

license. That is, the grantee or subgrantee must “grant to the public a worldwide, non-exclusive, royalty-free, perpetual, and irrevocable license to (i) access, reproduce, publicly perform, publicly display, and distribute the copyrightable work; (ii) prepare derivative works and reproduce, publicly perform, publicly display and distribute those derivative works; and (iii) otherwise use the copyrightable work, provided that in all such instances attribution is given to the copyright holder.” However, we believe that greater clarity concerning usage rights would be achieved by including a definition of “derivative works” and we have revised the rule to do so.

Changes: We have modified § 3474.20(f)(2) to provide that “[a] “derivative work” means a “derivative work” as defined in the Copyright Act, 17 U.S.C. 101.”

Comment: One commenter requested a clearer definition of the term “peer-reviewed research publications.”

Discussion: The proposed rule used the term “peer-reviewed research publications” in describing materials that will not be covered by this final rule. This is terminology that differs slightly from the terminology used in the IES Policy Regarding Public Access to Research (“public access policy”)³ that uses the term “peer-reviewed scholarly publications.” For the purposes of this final rule, we use the term “peer-reviewed scholarly publications” to refer to final peer-reviewed manuscripts accepted for publication, that arise from research funded, either fully or partially, by Federal funds awarded through a Department of Education grant, procurement contract, or other agreement. A final peer-reviewed manuscript is the author’s final manuscript of a peer-reviewed scholarly paper accepted for publication, including all modifications from the peer review process. The final peer-reviewed manuscript is not the same as the final published article, which is defined as a publisher’s authoritative copy of the paper, including all modifications from the publishing peer-review process, copyediting, stylistic edits, and formatting changes. However, the content included in both the final peer-reviewed manuscript and the final published article is identical.

We note that we have expanded the exception in § 3474.20(d)(1)(v) to include all peer-reviewed scholarly publications that arise from any scientific research funded, either fully or partially, from grants awarded by the

Department. This change is discussed further elsewhere in this preamble. Although the final rule no longer references the IES public access policy specifically, we are using the term “peer reviewed scholarly publications” because it is used by IES grantees, who represent a majority of those covered by this exception and is widely used in the field.

Changes: We have revised 2 CFR 3474.20(d)(1)(v) to use the same term defined in the IES public access policy, “peer-reviewed scholarly publications.”

Comment: Many commenters generally appreciated the conditions of the open license required in § 3473.20(a) and praised the Department for including terms that would ensure the broadest possible use by eliminating barriers while ensuring authors receive attribution for their work.

Discussion: We appreciate the commenters’ support.

Changes: None.

Comment: Many commenters that supported the conditions of the open license proposed in the NPRM suggested that these conditions be expanded to explicitly include the “right to redistribute” openly licensed materials, including adapted derivative works. These commenters note that without this explicit right, grantees may interpret the conditions to restrict downstream users from distributing any modifications or adaptations made to these materials. The commenters assert that the free distribution of modifications or adaptations makes open licenses powerful tools for innovation when any member of the public can modify or adapt grant-funded resources. Conversely, some commenters proposed additional modifications that would explicitly prohibit downstream users of the openly licensed materials, including adapted derivative works, from restricting usage or commercially distributing derivative works. These include Creative Commons licenses with Non-Commercial and Share-Alike restrictions.

Discussion: The Department agrees with the importance of having the ability to adapt and modify openly licensed materials, and to distribute those adaptations and modifications. We generally believe that where there are few restrictions on the terms of use and distribution, the Department’s grant-funded resources will be disseminated widely. To that end, we have expressly clarified that for copyrightable grant deliverables created in whole or in part with Department competitive grant funds, the grantee or subgrantee must include as a term of the

open license, the right to prepare derivative works and reproduce, publicly perform, publicly display and distribute those derivative works. At the same time, we appreciate commenters’ concerns regarding ensuring that a grantee or subgrantee has the discretion to select an open license, including a license that limits use of the grant deliverable to noncommercial purposes. Although we intended in the proposed rule that a grantee would have this discretion, we realize this was not clear and are revising the regulation to reflect the grantee’s or subgrantee’s discretion in this area.

For copyrightable works that are not funded by the Department, we have similarly left the terms under which any derivative works may be licensed to the discretion of the owner of the derivative work (e.g., if a grantee created a deliverable with grant funds and then creates a derivative work with other funding, the grantee would have the flexibility to choose how to license the derivative work, such as through commercial channels).

Finally, as discussed earlier in this section, we have defined the term “derivative work” to have the same meaning as contained in the Copyright Act.

Changes: We have modified § 3474.20(b)(1) to explicitly provide the right to prepare derivative works based upon the openly licensed works, as well as the right to reproduce, publicly perform, publicly display and distribute those derivative works. We have also revised § 3474.20(b)(2) to reflect that a grantee or subgrantee has the discretion to select a license that limits use of the grant deliverable to noncommercial purposes. In addition, we have modified § 3474.20(f)(2) to provide that “[a] “derivative work” means a “derivative work” as defined in the Copyright Act, 17 U.S.C. 101.”

Comment: In addition to comments on the conditions of open licenses, many commenters recommended that the Department specify the type of licenses that grantees should use under this rule. In particular, commenters suggested that the Department clearly reference or require the use of Creative Commons licenses. Commenters offered a number of considerations.

First, commenters noted that without a commonly understood licensing framework, lack of clarity over terms of use would impede the Department’s goals of widespread sharing and dissemination. For example, individual grantees could each create their own open licenses by following the conditions provided in the proposed rule. While their intent would be to

³ <https://ies.ed.gov/funding/researchaccess.asp>.

meet the requirements of the rule, the proliferation of novel licenses could result in confusion about usage rights or concerns about interoperability with other existing licenses. In these cases, the new or non-standardized licensing language may discourage or delay adoption or integration of resources due to the additional time and resources required to interpret the unfamiliar language and to verify legal interoperability issues and widespread sharing and dissemination could decrease, rather than increase. Directing grantees towards a licensing framework with broad familiarity would enhance the utility of the requirement and enable more immediate impact. These commenters cite Creative Commons licenses as the most commonly known, easily recognizable, and widely-used public license. To support this claim, commenters cited Web sites such as Wikipedia, Flickr, and Whitehouse.gov as well-known repositories of content that is openly licensed using Creative Commons licenses. Others note that Creative Commons recently reported that one billion works are licensed using one of their public licenses.

Second, commenters stated that the Department should adopt a Creative Commons licensing framework because it would align with frameworks already in place at other organizations. This alignment would enable entities to collaborate and share resources across these projects with fewer barriers. For example, commenters pointed to open licensing and access policies by other funders including the Bill and Melinda Gates Foundation, the William and Flora Hewlett Foundation, the Ford Foundation, the World Health Organization, and the World Bank, that require use of Creative Commons licenses. Commenters also pointed to other governments (the United Kingdom, Australia, and Poland) that have identified Creative Commons licenses as they begin to implement similar policies. Many commenters pointed to grant programs at the Department of State, including USAID, and the Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program as examples of programs at other Federal agencies that have already implemented open licensing requirements using Creative Commons licenses. Commenters noted that Creative Commons licenses have been embraced by open courseware projects that have produced diverse educational materials and innovative textbook offerings currently used at hundreds of

major colleges and universities and K-12 schools throughout the country.

Third, commenters stated that individually created licenses may satisfy the conditions provided in the proposed rule, but may not have the same force or effect of law. Commenters asserted that Creative Commons licenses are legally robust, internationally recognized licenses that are enforceable and easily adopted worldwide as they were written to conform to the international treaties governing copyright.

Finally, commenters noted the practicality of a Creative Commons license. These commenters stated that while Creative Commons licenses have a three-layered design (legal, human readable, machine-readable), the process of selecting and affixing the license and license deed is simple. In addition, commenters pointed to the wide availability of tools and resources developed to support the implementation of the Creative Commons licensing framework in various contexts. By adopting the same licensing framework, the Department could also utilize these existing tools and resources in its own implementation and training activities.

Discussion: We agree that the particular terms of the Creative Commons Attribution licenses (CC BY) are an example of a permissible type of license. However, we are concerned that limiting the license to only a CC BY license would result in less flexibility for grantees and would not account for changes and developments that could occur with respect to the types of licenses commonly used. We believe an appropriate balance of these concerns is to maintain our description of an open license.

However, we have revised § 3474.20(b)(2) to provide greater specificity concerning the requirements for the open licenses that a grantee may use under this rule that ensure that licenses selected are readily identified, either visually or electronically, and to minimize confusion about licensing terms and usage rights. These include the requirement that grantees use a symbol or device that readily communicates to users the permissions granted concerning the use of the copyrightable work, machine-readable code for digital resources, readily accessed legal terms, and the statement of attribution and disclaimer specified in 34 CFR 75.620(b).

Changes: In § 3474.20(b)(2) we added provisions requiring that any license used contain the following features: (i) A symbol or device that readily communicates to users the permissions

granted concerning the use of the copyrightable work; (ii) machine-readable code for digital resources; (iii) readily accessed legal terms; and (iv) the statement of attribution and disclaimer specified in 34 CFR 75.620(b).

Comment: Many commenters suggested that the Department expand the scope of the proposed rule beyond competitive grants to include all grants funded by the Department, including those grants funded by formula. These commenters note that while the absolute amount of funding that is available through competitive grant programs is not insignificant, it is small proportionally, when compared with the total funding available through formula programs. The commenters noted that in excluding formula grant programs funded under the Elementary and Secondary Education Act of 1965 (ESEA), as amended by the Every Student Succeeds Act (ESSA), and the Individuals with Disabilities Education Act (IDEA), the Department overlooks valuable resources created as a result of these programs. A few of these commenters specifically noted that with the passage of ESSA, many programs that were previously funded as competitive grants have been converted to State block grants, further decreasing the number of programs that would be covered by the proposed rule. The commenters noted the loss of public benefit, and encouraged the Department to promote greater development of open educational resources as a critical strategy to ensuring educational equity, especially for those served by schools in less wealthy communities.

Discussion: In developing the proposed rule, we considered whether it should apply to formula grants but we believe it is most appropriate to limit the applicability of the rule to competitive grants. Based on our experience in implementing this final rule for the Department's competitive grant programs, we will explore whether it is appropriate to expand its coverage to other Department grant programs.

With respect to ESSA, we note a few provisions that may be helpful in establishing the broader context of the Department's work to increase dissemination of educational materials through the use of open educational resources and educational technology. In particular, we note that while Title IV of ESSA authorizes block grants for services that previously were provided under competitive grants under ESEA, openly licensed resources are now incorporated more broadly into all digital education interventions funded by ESSA formula programs. For example, ESSA incorporates open

educational resources into the definition of digital learning in section 4102. As a result, open educational resources may be more easily incorporated into programs authorized under section 4101 to expand digital learning opportunities to rural and remote areas or to develop courses or curricula that incorporate digital learning technologies and under section 4109, to allow LEAs receiving subgrants from States to implement similar measures in their districts. Separately, States receiving allotments under section 4104 may use them to increase access to personalized learning experiences, including “making content widely available through open educational resources.”

Change: None.

Comment: Some commenters requested that the Department explicitly communicate which of the Department’s grant programs would be impacted by the open licensing requirement. These commenters noted that the language of the NPRM leaves open to interpretation the particular grant programs covered and has resulted in confusion over whether it would be applicable to grants awarded under the SBIR program.

Discussion: We address these comments on identifying the Department’s grants that would be impacted by this rule in the *Regulatory Impact Analysis* section of these final regulations because this issue of applicability is closely tied to budgetary and regulatory impact concerns. We address the question of whether this rule applies to the SBIR program in a separate *Discussion* section above.

Changes: None.

Comment: One commenter asked whether the requirements and exemption provided in proposed § 3474.20(c)(3) applied only to peer-reviewed research publications that result from IES-funded research or whether it is applicable to publications resulting from all Department-funded research. The commenter also asked whether the proposed rule would require that the work of writing the article also be funded by the grant, in order for the requirements to apply.

Other commenters suggested that the Department eliminate the exception for peer-reviewed research publications under the proposed rule. These commenters noted that, although the IES’ public access policy makes peer-reviewed scholarly publications available for the public to access, these same publications would still be subject to copyright restrictions. These commenters expressed concern that exempting peer-reviewed research unintentionally overlooks materials that would be of value to the public and to

the scientific community and encouraged the Department to apply the rule uniformly for all grant-funded materials, including these publications. The commenters recognized that IES’ current public access policy is consistent with the requirements laid out in the 2013 Office of Science and Technology Policy (OSTP) Memorandum for Heads of Executive Departments and Agencies https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf. However, they stated that requiring an open license, in addition to requiring public access, could provide an opportunity to accelerate scientific discovery and fuel innovation. One commenter recommended that research publications be made available under a CC BY license, aligning our rule to requirements for publications resulting from scientific research funded by other organizations, such as the Bill and Melinda Gates Foundation. Another noted the high cost of access to research publications and that removing the exception would ease financial constraints on some institutions.

Other commenters that did not support the proposed rule applauded the Department for exempting peer-reviewed research publications covered by the IES’ public access plan. These commenters noted that the 2013 OSTP Memorandum provides an example of a policy that appropriately balances policy benefits of open access while accommodating journal publisher subscription business models.

Discussion: While the majority of research and development activities at the Department are supported through competitive grants administered by the two IES research centers, commenters rightly observe that research and development investments are also supported by other offices within the Department. These include the Office of Innovation and Improvement, the Office of Special Education and Rehabilitative Services (OSERS), the Office of Postsecondary Education (OPE), and the Office of Career, Technical, and Adult Education (OCTAE).

The exception in proposed § 3474.20(c) would have applied only to IES grantees because peer reviewed scholarly publications produced under those grants are subject to the IES’ public access policy, which ensures that those publications are made available to the public through posting on the Education Resources Information Center (ERIC). In the final rule, we have broadened this exception to cover any peer-reviewed scholarly publications funded by any Department grant, not

just an IES grant. We do not believe this significantly changes the practical application of this exception; rather, we believe it makes the application of our rule more consistent. We note that the majority of research and development activities at the Department are the result of IES research grants. For IES grants that result in peer reviewed scholarly publications, the requirements of the IES public access plan will still apply. Currently, the Department is exploring the development of a rule, which would be subject to Administrative Procedures Act notice and comment requirements, which would extend the IES public access requirements for peer-reviewed scholarly publications to all Department grantees. Additionally, we have removed the reference to the IES public access plan from the exception in the corresponding final § 3474.20(d)(1)(v) because that plan is not applicable to Department grants funded outside of IES. The IES public access policy is a document that, under 20 U.S.C. 9581, could be revised without rulemaking. In light of the fact the document could continue to evolve, we do not think it is appropriate to rely on it for the scope of the exception.

One commenter also correctly noted that the work of writing publications may not always be funded by research and development grants. Regardless of whether the work of writing the article is grant-funded, if the research on which the publication is based is supported in whole or in part by grant funds, then the exception in final § 3474.20(d)(1)(v) applies.

Conversely, some grant programs may fund the authorship of articles for publication that do not arise from any scientific research funded by the Department. In these cases, the grantee would be required to apply open licenses to the new works of authorship as described in final § 3474.20(a).

In response to the comments to eliminate the exception in proposed § 3474.20(c)(3), we think that at this time, it is necessary to provide for an exception for peer-reviewed scholarly publications. The research community benefits from allowing the results of scientific research, including research funded by the Department, to be published in scientific journals and subjected to the rigors of peer-review that is a prerequisite to such publication. We note that we are not maintaining the exception in order to accommodate journal publisher subscription business models. Rather, we recognize that there are limited number of open access research journals. Requiring these grantees to

openly license the publications at this time may limit their ability to distribute rigorously reviewed scholarly publications without this exception.

Changes: We have moved this exception from proposed paragraph (c)(3) and into final paragraph (d)(1)(v) and removed the reference to the IES public access policy from the exception. We also expanded the exception to include all peer-reviewed scholarly publications resulting from research grants awarded by any office within the Department.

Comment: Many commenters expressed concern that the open licensing requirement would cause grantees to violate existing copyright or licensing restrictions if they were required to openly license materials. For example, one commenter noted that grant-funded educational resources could incorporate the use of licensed stock photos. Similarly, some commenters note that in many cases, the new modifications to existing intellectual property may require the original, copyrighted work in order for context or application. Another commenter indicated there was confusion in understanding the difference between our usage of the phrases “pre-existing content” and “existing intellectual property.” Many commenters pointed in particular to modifications of computer software, where improvements would not be useful without access to the original licensed programs.

Discussion: It is not our intent to cause any grantee to violate any existing copyrights or licensing restrictions. First, this rule covers only those grant deliverables that are created wholly or in part with Department competitive grant funds, and that constitute new copyrightable works. In instances where the grant deliverables consist of copyrightable modifications to a pre-existing work, the rule only extends to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. This rule does not impose a requirement to license pre-existing works. This rule also does not require the grantee to modify the terms of any pre-existing license or restrictions, irrespective of whether the grantee is the copyright owner. To ensure these points are clear, we are revising the rule to reflect that it does not cover copyrightable works that are not created with Department grant funds or any copyrightable work incorporated in the grant deliverable that is owned by a party other than the grantee or

subgrantee, unless the grantee or subgrantee has acquired the right to provide such a license in that work. Further, the rule does not apply to grantees or subgrantees where compliance would result in a conflict with the grantee’s or subgrantee’s other intellectual property-related obligations, such as those under the terms of a license agreement.

Similarly, this rule does not require that grantees provide access to computer programs protected under copyright or other laws. We understand that in many cases, the modifications may only be viable within the context of existing commercial software or platforms. However, we believe that these modifications, accompanied by any supporting documentation, may benefit other users of the same commercial software or platforms to the extent that these modifications can be separately identified and extracted from the underlying proprietary work and that open licensing would be permissible under the terms of any restrictions applicable to that underlying work. In light of these comments, we have revised the text of the rule to make this distinction more salient.

Finally, we agree that the references to “pre-existing content” and “existing intellectual property” required appropriate revisions in order to provide greater clarity to the public.

Changes: We have revised § 3474.20(a) to provide that the rule applies to copyrightable modifications to pre-existing works, to the extent such modifications can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works.” Additionally, § 3474.20(d)(1)(iv) and (e), now provide, respectively, that the rule does not apply to “[c]opyrightable works created by the grantee or subgrantee that are not created with grant funds,” or “any copyrightable work incorporated in the grant deliverable that is owned by a party other than the grantee or subgrantee, unless the grantee or subgrantee has acquired the right to provide such a license in that work.” Also, § 3474.20(d)(1)(vi) now provides that the rule does not apply to “[g]rantees or subgrantees for which compliance with these requirements would conflict with, or materially undermine the ability to protect or enforce, other intellectual property rights or obligations of the grantee or subgrantee, in existence or under development, including those provided under 15 U.S.C. 1051, *et seq.*, 18 U.S.C. 1831–1839, and 35 U.S.C. 200, *et seq.*”

Finally, the references to “pre-existing content” and “existing intellectual property” have been removed and the rule now refers to “pre-existing works.”

Comment: Many commenters stated that the requirement to openly license copyrightable works is overly broad. Commenters noted that the Department appears to intend to implement the regulation indiscriminately, without regard for how to distribute works for maximum benefit or without regard for whether the public would benefit from the intellectual property. Specifically, one commenter noted that emails, deliberative work product, and assessments, among other resources would be included in this requirement.

Discussion: Our intention with these regulations is to ensure broad dissemination of and access to high-quality educational resources. We recognize that, in the course of developing these resources, grantees will generate additional copyrightable materials such as email correspondence, administrative documentation, or deliberative work products. Although these materials are items that are considered copyrightable works produced through a grant project, many of them will not be considered program support materials necessary to the use of the deliverables and therefore would not need to be openly licensed. Others, however, may be considered program support materials necessary in order to understand, learn from, and replicate deliverables. For example, some outreach materials may describe grant deliverables to stakeholders, or others may document best practices in implementation for specific target populations. These program support materials that are considered necessary to the use of grant deliverables, must be openly licensed and made available to the public. Other items, such as staff training curricula, production guides or planning documents that are created as a result of implementing the grant project, may or may not provide useful information for understanding the administration of grant activities. In these cases, the Department is committed to working with grantees to determine whether these should be part of their dissemination plan. In cases where these support materials are appropriately considered records, grantees should follow record-keeping requirements in 34 CFR 75.730–732. Our goal is to ensure that the public may benefit from the sharing of those grant products that may have significant value, but not to unduly burden grantees.

We agree with the commenters that our intentions and the rule’s scope

should be clarified and are revising the final rule to narrow the scope of the copyrightable works that must be openly licensed under § 3474.20(a) to copyrightable grant deliverables. Specifically, we are including a definition of “grant deliverable” in the final regulations and specifying that the open licensing requirement only applies to grant deliverables. Under the definition, a “grant deliverable” is a final version of a work, including any final version of program support materials necessary to the use of the deliverable, developed to carry out the purpose of the grant, as specified in the grant announcement.

The Department is committed to working with grantees to develop licensing and dissemination strategies that are particular to their grant program, offer appropriate privacy protection, do not create duplicative work for the grantee, and are consistent with the goals of the grant program and this final rule. Department staff will be trained to address these items throughout the implementation period of the rule. We note that it is impossible for us to make specific determinations in advance about which resources would be of use to various stakeholders in the field and believe our goals are best accomplished when the public is given access to the broadest array of materials created to make their own determination regarding their usefulness. The Department will provide further guidance to grantees concerning grant deliverables during implementation of grant programs.

Changes: We have added § 3474.20(f) to provide a definition of “grant deliverable” to mean a final version of a work, including any final version of program support materials necessary to the use of the deliverable, developed to carry out the purpose of the grant, as specified in the grant announcement.

Comment: One commenter expressed concern over the potential negative effects of the proposed regulation on grantees of the Department’s Ready to Learn Television grant program, and recommended the Department add an exception for “grants that provide funding for public television entities.” The commenter detailed consequences of the final regulation in three broad categories.

First, the commenter indicated that under existing programmatic requirements, content and resources created by the Ready to Learn grant program are already distributed as broadly as possible. In implementing these distribution and outreach requirements, the commenter noted that grant-funded television content is

distributed over-the-air to almost every household in America and grant-funded transmedia content such as mobile applications and other digital resources are already available at no cost to teachers, parents, and children.

Second, the commenter indicated that the quality and sustainability of materials created with Ready to Learn grant funds would be undermined. The commenter noted that Ready to Learn grant funding serves as seed funding for many of the public television series and transmedia content and asserted that without non-exclusive distribution rights it would be impossible to secure additional funding through public-private partnerships. In addition, the commenter noted that it would be impossible to secure partnerships with experienced producers of top quality educational series. Similarly, the commenter noted that Ready to Learn grantees, together with experienced producers, have been able to create resources that are qualitatively different than content created by other grantees and that the open license requirement would preclude production of any further content.

Finally, the commenter stated that the impact of the open license would extend beyond loss of revenue to encompass loss of educational content that would not be produced in response to this regulation. In addition, the commenter noted that resources produced by Ready to Learn funding can be used broadly by educators in accordance with the fair use provisions of copyright law and that testing and research have shown that there is no indication of a further need for educators to create derivative works. The commenter also stated that contrary to the Department’s expectation that the proposed regulations would not have a significant economic impact on a substantial number of small entities, the proposed regulation would have a significant impact on a substantial number of small entities as it would reduce the programming available for small entity licensee stations to air, and would degrade community and foundation financial support for stations by constraining stations’ ability to engage with and serve their local communities.

Discussion: The Department values the work of our Ready to Learn grant recipients. We appreciate the commenter’s data on the broad distribution and availability of the television and digital content created by public television entities through the Ready to Learn Television grant program. We commend the Ready to Learn Television program grantees for

creating high quality, research-based transmedia content that is readily available to early learners of many diverse backgrounds.

We have added an exception in § 3474.20(d)(1)(vi) for grantees or subgrantees under the Ready to Learn Program because of two factors unique to the design and statutory mandate of the Ready to Learn program. First, one stated goal of the proposed regulation is the broad distribution of materials funded by the Department. The commenter provided evidence that the particular qualities of the Ready to Learn distribution model and transmedia strategy, and the specific programmatic and statutory requirements to broadly distribute these materials have achieved market dissemination at least equivalent to the dissemination likely to be achieved through compliance with this final rule. Second, a stated goal of the proposed regulation is to spur innovation through creative reuse of grant-funded materials. As the commenter notes, many of the resources created under the Ready to Learn program are based on pre-existing intellectual property and the intellectual property owned by the grantee in the final grant deliverable, in isolation, would provide minimal opportunity for meaningful adaptation, modification, or other re-use.

We disagree with the commenter’s recommendation that the Department adopt a categorical exception for all grants that provide funding for public television entities. Although it is apparent from the comment that the recommended exception was specifically with reference to the Ready to Learn television grant program, we note that public television entities may also be the recipient or sub-recipient of other Department grants subject to this regulation. For example, public television entities have received funding as partners in the Special Education Educational Technology, Media, and Materials for Individuals with Disabilities Program (formerly Technology and Media Services for Individuals with Disabilities). The recommended exception, as written, would apply too broadly to any grant in which a public television entity was a recipient or sub-recipient, without sufficient evidence that all public television entities would be adversely affected by this rule in a similar manner.

The reasons the commenter gave for a categorical exception are seemingly unique to grantees under the Ready to Learn grant program.

Changes: We have revised the final regulations to provide that grantees under the Ready To Learn Television

Program, as authorized in section 2431 of the ESEA, 20 U.S.C. 6775, are excepted from the rule's requirements.

Comment: A few commenters expressed concerns with the proposed rule in the context of the Department's broader #GoOpen initiative to encourage States, school districts, and educators to use openly licensed educational materials. One commenter disagreed with the Department's assertion that openly licensed materials will increase equity, suggesting that inequality of connectivity and hardware necessary to access openly licensed resources and costs of printing of digital materials instead preserves the existing inequalities between schools. This commenter also stated that rather than empowering teachers, adaptable, openly licensed resources actually impose additional burdens on already overtaxed teachers. Finally, another commenter similarly questioned whether the Department, in expressing a preference for openly licensed educational resources, might be distorting fair market competition for educational materials.

Discussion: We appreciate the comments on the #GoOpen initiative. Because the #GoOpen initiative is an activity separate from this rulemaking, many of these concerns are beyond the scope of this regulatory action. However, we believe a few clarifications will limit any confusion between these activities, and their differing scopes.

The #GoOpen movement is a specific movement where districts and states voluntarily participate in a community of practice focused on the use of openly licensed, digital resources. For these #GoOpen districts and States, openly licensed resources provide opportunities for cost savings and dissemination and innovation beyond the mere digitization and print reproduction of resources across the socioeconomic spectrum. The #GoOpen movement supports districts and States, in curating curricular materials that teachers can use or reuse or adopt based on the unique needs of their students or to suit their individual approaches to instruction. These teachers are afforded tools and professional learning resources from their district or State and from other districts and States so that they can capitalize on the opportunities provided by openly licensed and other digital resources. This is consistent with other policies, such as those reflected in the ESEA the authorization of appropriations for, among other professional development activities, training on the use of digital and openly sourced materials. Beyond individual classroom teachers, the #GoOpen

initiative encourages administrators, technology directors, parents, and students themselves to work collaboratively in order to ensure the best opportunities for success. Through the #GoOpen movement, the Department actively supports partnerships between States, districts, and educators; promoting promising models of leadership; and aligning public and private efforts.

The #GoOpen movement is one specific initiative of the Department, where the Department coordinates the community of practice for States, school districts, and educators that voluntarily use openly licensed educational materials. We believe that a consideration to move towards openly licensed textbooks must include an objective evaluation of relevance and quality, as well as cost. Those resource decisions are made at the State and local level. Our efforts through the #GoOpen movement encourage State and district leaders to give equal consideration to openly licensed resources in making the best possible decision for educators and students.

This rule does not impose requirements for teachers or any other stakeholders to use openly licensed resources or encourage them to eschew publisher textbooks.

Changes: None.

Comment: Several commenters stated that the proposed rule would conflict with patent rules, stating that the existing technology transfer mechanism established at research institutions through current regulations is the most effective means of promoting innovation and commercialization of grant funded intellectual property. The commenters assert that requiring an open license on grant-funded materials would reduce rather than increase innovation and dissemination.

These commenters note that the technology transfer infrastructure established as a result of the Bayh-Dole Act and other patent provisions has incentivized commercial entities to develop grant-funded works into successful products and services with greater reach. One commenter provided data from articles analyzing the impact of the Bayh-Dole Act which state that federally funded research has resulted in nearly 10,000 patented products and enabled the launch of 4,200 new companies with a net product sales of \$22 billion in 2013 alone. The commenter concluded from this data that the profits from these sales have incentivized partnerships with Department grantees that result in broad and relevant dissemination of products. Other commenters similarly note that

public-private partnerships are critical to enabling sustainability of grant-funded products. In cases where grantees that have created computer software source code, that code itself often requires additional investment in product development, marketing, distribution, and support services for updates and upgrades. In cases where grant-funded research has resulted in creating interventions, these partnerships can allow continuous refinement and improvement of the intervention.

Those commenters that warned the Department about the unintended effects of an open license on the incentive to innovate asserted that profit incentives are the engine of innovation. The commenters stated that, this rule would remove these incentives, which would stifle new ideas and result in fewer innovations. Similarly, some commenters stated that commercialization was the only means by which intellectual property becomes widely distributed and that open licenses would irrevocably harm product dissemination for grant funded materials.

Other commenters expressed concerns that the loss of profit incentives would cause stakeholders to pursue alternate, non-Federal funding, rather than Department grant funding.

Discussion: The Department agrees with the commenters that commercialization is an important means of promoting innovation and can result in broad dissemination of patents and other types of intellectual property. Grantees that comply with the legal requirements to openly license grant funded copyrightable works identified in the rule may still wish to seek patent protection on any invention created with grant funds. To ensure clarity about the rule's application, we are revising the rule to provide that it would not apply in instances in which compliance with the rule would conflict with or materially undermine the ability to protect or enforce other intellectual property rights or obligations of the grantee or subgrantee, in existence or under development. For example, the rule would not apply to a grantee or subgrantee in instances where the application of the rule would materially undermine the grantee's rights if the grantee or subgrantee had developed, or was in the process of developing, an invention that it wishes to patent.

Alternatives to commercialization also exist that can promote innovation in the field of education, act as an efficient means of broad dissemination of educational research or resources, and help sustain innovations after grant

periods end. As shown elsewhere in this document, there have been many examples of the broad dissemination and innovations developed from high-quality openly licensed educational content.

We again note that any derivative works created based upon grant deliverables using non-Department grant funds are not covered by this rule. Grantees may leverage works created under an open license to establish or maintain a relationship with a private entity for the purpose of commercialization.

The Department appreciates the commenters' concerns that our stakeholders may eschew Department grants in favor of other funding without these requirements. Our competitive grant programs are intended to support equal access to high-quality education for all students. By allowing others to freely use, with minimal restrictions, the educational resources created with our funding, we are providing opportunities for the global community of stakeholders to pursue solutions to their challenges. As previously mentioned, commercial incentives are not the only drivers of innovation in the field of education; similarly, we do not believe economic motive to be the sole consideration for stakeholders to participate in our grant programs. We observe that after implementing their similar policy, the Department of Labor continued to require applicants to form public-private partnerships in numerous notices inviting applicants for competitive grants. Despite the requirement that grantees make copyrightable intellectual property available under a Creative Commons Attribution (CC BY) license, the many programs covered since the enactment of their regulation have received a large pool of applicants. We recognize, however, that there may be some situations where a grantee may have difficulty forming a partnership with a private entity to create a grant deliverable. We believe that such situations are best addressed on a case-by-case basis and are revising the final regulation to include this situation as an example of where the Secretary may consider it appropriate to grant an exception to the open licensing requirement.

Changes: We have revised § 3474.20(d)(1)(viii) to provide that the open licensing requirement does not apply to “[g]rantees or subgrantees for which compliance with these requirements would conflict with, or materially undermine the ability to protect or enforce other intellectual property rights or obligations of the

grantee or subgrantee, in existence or under development, including those provided under 15 U.S.C. 1051, *et seq.*, 18 U.S.C. 1831–1839, and 35 U.S.C. 200, *et seq.*” We also have included in § 3474.20(d)(1)(vii) examples of situations in which the Secretary may consider it appropriate to grant an individual exception to the open licensing requirement. One of these examples is the situation in which the grantee's compliance with the open licensing requirement would impede the grantee's or subgrantee's ability to form the required partnership to carry out the purpose of the grant. The other example is discussed later in this section.

Comment: Commenters stated their concerns related to openly licensing research-based interventions resulting from the Department's research grants. These comments fall into three general categories. First, commenters noted that grantees often receive research funds to produce early prototype models or interventions that have not yet benefited from robust efficacy studies. Openly licensing these resources would allow the public to access them ahead of testing and could lead to adoption of ineffective or potentially harmful resources. Commenters noted that this would especially harm disadvantaged populations. Second, commenters stated that the interventions developed through research grants are complex to administer, often requiring expert training or technical support in order to maintain quality control and ensure valid outcomes. Commenters noted that quality could be diminished through uncontrolled adaptations or derivatives that deviate from the evidence base or context established by the original researchers. Similarly, commenters also stated that in some cases, individuals could deliberately ignore the original parameters or context established by the researchers and pursue inappropriate use. In all of these cases, the reputation of the researcher could be compromised and the effectiveness of the original resource dismissed.

Third, many commenters noted that research institutions exercise good stewardship over grant resources and already employ a number of strategies to broadly disseminate their findings. Many commenters also provided examples of existing initiatives that result in broad dissemination of research-based interventions. Some of these examples included use of strong partnerships with a commercial partner to allow for continued refinements to the products, reinvestment into future research, and technical support for implementation, even after the end of

the grant period. These commenters also note that many research institutions do not have the expertise or capacity to effectively scale interventions, and even if openly licensed resources were available, wide dissemination would not occur without these partnerships. Additionally, some commenters stated that the existing IES goal structure was the most effective model of ensuring research-based interventions are scaled and disseminated widely, and recommended that IES maintain this goal structure.

Discussion: We appreciate the concern that many IES grantees and education researchers have expressed related to implementation of the rule. In general, we note that this rule is intended to apply across competitive grant programs, not only to IES grantees.

We agree with commenters that rigorous efficacy testing is necessary to ensure high quality resources, including interventions, products, and assessments, benefit students. We note that in addition to the early prototype models or interventions themselves, any final versions of program support materials necessary to the use of the prototype model or intervention, including professional development and training materials, research findings, and documentation of the context and efficacy of the resources created with grant funds would also be made available through an open license. Additionally, any materials created as part of IES research grants would also include rigorous peer-reviewed scholarly publications that would be available through ERIC. The availability of these supporting materials will allow the public to readily discern which resources could be appropriately used and which resources have not yet reached maturity. In some cases, these materials will prescribe the appropriate context and correct implementation methodology of the resource. We believe that practitioners should not be denied access to materials because of the possibility that they will misunderstand or misuse them. By openly licensing the supporting materials, data, and other program support materials, grantees can ensure that practitioners have the tools necessary to understand, learn from, and replicate deliverables, and to consult with researchers as appropriate.

In response to the commenters' concerns, we make three observations. First, even before product maturity, prototypes and early stage research, including supporting documentation, can greatly benefit other researchers, allowing them to also test and refine the resource, potentially creating prototypes for different applications. We believe

this will result in developing resources at a rapid speed and encouraging innovation in the educational research field. We note that although peer-reviewed scholarly publications are excepted from this rule, those publications that are supported by IES grant funds are subject to the requirements of the IES' Policy Regarding Public Access to Research. As noted earlier, the Department is exploring other administrative means for expanding the requirements currently followed by for IES grant-supported peer-reviewed scholarly publications to all Department grants. We believe that the combination of the open access to publications and data with the openly licensed resources will enable the community of education and scientific stakeholders to use the early research effectively and responsibly.

Second, we share in the concerns related to the misapplication of scientific research and misuse of educational tools. Nevertheless, we note that these issues may occur regardless of whether the research or tools are under copyright or available through an open license. We also note that members of the public, policymakers, educational practitioners, and other stakeholders, often incorrectly attribute their assertions to researchers, resulting in loss of reputation to the researcher. We do not believe that the root cause of these unfortunate circumstances is the availability of resources through an open license. In fact, a machine-readable license format on digital resources may actually facilitate the discovery of the original research and underlying frameworks for implementation. We also note that separate from the IES Policy Regarding Public Access to Research, many research institutions have already established faculty open access policies that enable public access to research and data.⁴

Third, we acknowledge that in many cases, research entities lack expertise and capacity to scale the adoption of new resources and that in many cases, private entities play an important role in the iterative improvement of resources, often contributing funding in the process. For the purposes of this rule, the Department believes that the primary barrier to broad dissemination is not the lack of capacity; rather it is the lack of access to resources. Even if one research entity does not have the capacity to scale a resource, an open license enables other entities, some with greater expertise and resources, to disseminate them. We note that this

regulation does not cover derivative works, funded privately through these partnerships.

Finally, we note that this regulation does not alter the structure or statutory requirements for any existing grant program, including the goal structure of IES-funded grant programs. As discussed elsewhere in this regulation, peer-reviewed scholarly publications that arise from scientific research funded, either fully or partially, from grants awarded by the Department are excepted from this regulation. This plan provides access both to research findings and the scientific data, encouraging researchers, practitioners, and the general public to test and improve findings and resources and otherwise enhance value for all stakeholders.

Changes: None.

Additional Questions

In the NPRM we posed five questions that requested comments on whether the proposed regulations should include certain additional implementation requirements. The responses provided to the five questions are summarized below.

Question 1: Should the Department require that copyrightable works be openly licensed prior to the end of the grant period as opposed to after the grant period is over? If yes, what impact would this have on the quality of the final product?

Comments: Commenters that responded to this question were divided over whether it would be best to require that the open licenses be applied prior to the end of the grant or after the grant is over. In general, all commenters that opposed the requirements of the NPRM did not believe that open licenses should be applied prior to the end of the grant period. These commenters noted that this would result in a number of negative public consequences. For example, prior to the end of the grant period, products or interventions may not yet be complete or useful and may harm the public if disseminated too early or without proper training on their implementation. In addition, openly licensing and distributing non-final versions could create confusion for the public about which version to adopt or hinder the peer review process.

Conversely, some commenters stated that applying open licenses and distributing materials prior to completion will give opportunity for more feedback and review and give the grantee additional time to make adjustments or refinements prior to the end of the grant period leading to a better final product. In addition, by

making their work known, duplicative efforts can be avoided.

Other commenters stated that the decision of whether the license is applied prior to the end of the grant period should be made based on the goals and circumstances of the grant program.

Discussion: We considered the variety of viewpoints reflected in the comments and the variety of grant programs funded by the Department. We believe that it would be difficult to prescribe a single timing requirement appropriate for all programs. Depending on the goals of the particular grant program or the individual project proposal, the grantee may elect to openly license the intellectual property created through the grant before the grant period has ended, though that is not a requirement. The final rule does not specify whether copyrightable grant deliverables should be openly licensed prior to the end of the grant period or after the grant period is over, thereby leaving it to each grant program to decide.

Changes: None.

Question 2: Should the Department include a requirement that grantees distribute copyrightable works created under a direct competitive grant program? If yes, what suggestions do you have on how the Department should implement such a requirement?

Comments: Commenters were divided in their response to the proposed requirement for grantees to distribute Department-funded works. Many commenters supported an additional requirement to distribute Department-funded works. Of these, some commenters proposed that the Department be nonspecific about the method of distribution. One commenter expressed concerns that specificity would drive away institutions currently implementing other distribution methods. Others suggested more specific methods, including the use of a CC BY license or dissemination of works through online platforms. Some of these commenters accompanied their suggestions with proposals for additional Federal requirements, such as a sustainability plan in the grant application or a final report containing a link to the location of the work in an online repository.

Other commenters disagreed with requiring distribution by grantees. These commenters suggested that the responsibility of distribution resides with the Department, such as through the use of the ERIC, an online library of education research and information, sponsored by IES. Similarly, others suggested partnership with existing repositories or the creation of another

⁴ <http://sparcopen.org/coapi-members/>.

online repository. Commenters also noted that the Department should make funding or other resources available to grantees if it establishes distribution requirements or allow grantees to monetize modifications to the grant-funded materials.

Discussion: We note the variety of suggestions that reflect the experience of the diversity of our grant recipients. In reading the suggestions, we believe that the specific mode of dissemination enabled by open licenses should remain at the discretion of the program in order to be appropriate to the needs of the grantees and align with the statutory goals of that program. However, we believe that our goals would be best achieved by including a requirement that grantees provide information about the resources that have been created with support of Department grant funds. As a result, we have added a requirement for grantees to submit a plan for dissemination of their openly licensed resources. We would encourage grantees to provide links to public Web sites of their works if that is appropriate based on the nature of their resource. We note that for a grantee that does not have its own Web site, there are a number of free methods to distribute digital openly licensed materials through publicly available Web sites, learning resource, and metadata repositories.

We also recognize that a grantee may develop a robust dissemination plan that could demonstrate meaningful dissemination that is equivalent to or greater than the dissemination likely to be achieved by compliance with the open licensing requirements. Accordingly, we are revising the regulation to provide this situation as an example of a scenario in which the Secretary would consider granting an exception to the open licensing requirement.

Changes: We have added final § 3474.20(c) to state that a grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate the openly licensed grant deliverables that were created in whole, or in part, with Department grant funds. In final § 3474.20(d)(1)(vii), we have also provided an example of a basis for providing an exception under 2 CFR 3474.5 and 200.102 where the Secretary has determined that the grantee's dissemination plan would likely achieve meaningful dissemination equivalent to or greater than the dissemination likely to be achieved through compliance with paragraph (a) or (b) of this final rule.

Question 3: What further activities would increase public knowledge about

the materials and resources that are created using the Department's grant funds and broaden their dissemination?

Comments: The Department thanks commenters for the numerous recommendations regarding activities that would broaden the dissemination of materials and resources created using the Department's grant funds. Several commenters suggested the adoption of an existing online, open platform, such as OER Commons, GitHub, and OpenStax CNX. Others stated the need to create and enforce an entirely new repository of works and related reports or an index containing links to pages where the specific resource can be located.

Aside from online platforms, commenters suggested the launch of a large advertising campaign of Department-funded works including the use of media such as emails, newsletters, and speeches where the Department highlights openly licensed materials and resources. Finally, a few commenters stated the need for the Department to communicate with grantees directly to discuss what exactly open licensing entails and how dissemination practices can be funded.

Discussion: We appreciate the variety of suggestions provided by commenters. In addition, we appreciate the concern for public awareness. We will consider these recommendations as we work to increase the public's knowledge of materials that are openly licensed pursuant to this final rule. It is our intention to also provide robust training to grantees on how to satisfy this requirement. We note that at this time, the Department does not have the funding to support the development of an online repository solution.

Changes: None.

Question 4: What technical assistance should the Department provide to grantees to promote broad dissemination of their grant-funded intellectual property?

Comments: Commenters suggested that the Department provide guidance for grantees for a variety of topics, such as licensing standards, metadata, formatting, information on how to access openly licensed resources to incorporate them into original works, and creating accessible materials. The commenters suggested that this guidance be provided through formal workshops and training. Other commenters suggested that the Department promote dissemination by creating a user-friendly central repository of works and related reports, developing a directory of funded materials, or establishing a funding mechanism specific to distribution.

One commenter suggested that grantees should continue to work with technology transfer offices at their institutions.

Discussion: We thank the commenters for the numerous suggestions provided. The Department has taken these into account and will incorporate these into future training for grant recipients. At this time, we will not be providing funding for the creation of a central repository of works or reports, nor is there any additional funding available specific to distribution.

Changes: None.

Question 5: What experiences do you have implementing requirements of open licensing policy with other Federal agencies? Please share your experiences with these different approaches, including lessons learned and recommendations that might be related to this document.

Comments: We thank the commenters who responded to this question and had a wide breadth of experience implementing other open licensing requirements. Only one commenter had direct experience as a Department grantee. Though open licensing was not a requirement of their grant project, the grantee elected to use an open license to ensure that grant-funded resources would be made available to as many individuals as possible. This grantee reported positive experience running a grant-funded education center that provides services to individuals with disabilities. In addition to distribution, the grantee reported that with equal availability as a foundation, "openness" enabled cooperation between multiple organizations to address the common challenge of STEM accessibility. The grantee made several recommendations, including use of Creative Commons licenses, that materials be released under an open license at time of completion or wide distribution during the grant period, that materials be made available on the internet without obstructions, and that metadata be listed on a resource site such as the Learning Registry. The grantee also recommended that the Department host all grant funded materials on a resource site.

A few commenters had direct experience implementing open licensing policies of other Federal agencies, including the Departments of Labor and the National Science Foundation. Based on their experience these commenters recommended that the Department direct grantees to use licenses that are interoperable that allow a broad range of reuse, including specifically, Creative Commons licenses. One commenter had experience leading open repository

development and technical assistance on numerous projects including establishing the Department of Labor's repository for the TAACCCT grant program, the National Science Foundation National Digital Library of Science, and the California Affordable Learning Solutions initiative. This commenter noted the importance of providing an online library of all grant-funded resources to enable quality and continuous improvement. In addition, the commenter noted the importance of providing support to institutional leaders in developing and implementing a change management strategy for their institution to locally design and implement culturally aligned, locally supported, and collectively valued ecosystems of intellectual property strategies, recognition, and incentives for openly sharing intellectual property, and an institutional mission for improving society through quality education.

One commenter stated that they did not know of any other Federal funding agencies that would make this regulation a grant requirement, as it would require forfeiture of intellectual property.

Discussion: We thank these commenters for sharing their experiences. All of the suggestions have been discussed elsewhere in this regulation, except for the suggestion to list metadata on a resource site such as Learning Registry. The Department believes that Learning Registry is a valuable metadata repository for open educational resources. Grantees of the Department are encouraged to consider using Learning Registry or other public, freely available platforms to enable sharing of resources.

In reviewing these comments, we noted that our proposed rule did not account for situations in which a grant deliverable is jointly funded by both the Department and another Federal agency where the other Federal agency does not require the open licensing of its grant deliverables for that program. In these instances, we recognize that complying with the Department's open licensing requirement may cause confusion regarding a grantee's ability to comply with the requirements of that other Federal agency regarding the grant deliverable, so we are revising the regulation to provide that the rule would not apply to these types of grant deliverables.

Changes: We have revised § 3474.30(d)(1)(iii) to provide that the open licensing requirement does not apply to grant deliverables that are jointly funded by the Department and another Federal agency if the other

Federal agency does not require the open licensing of its grant deliverables for the relevant grant program.

Executive Orders 12866 and 13563

Regulatory Impact Analysis

Under Executive Order 12866, the Secretary must determine whether this regulatory action is "significant" and, therefore, subject to the requirements of the Executive order and subject to review by the Office of Management and Budget (OMB). Section 3(f) of Executive Order 12866 defines a "significant regulatory action" as an action likely to result in a rule that may—

(1) Have an annual effect on the economy of \$100 million or more, or adversely affect a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities in a material way (also referred to as an "economically significant" rule);

(2) Create serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impacts of entitlement grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles stated in the Executive order.

This final regulatory action will have an annual effect on the economy of more than \$100 million because of the benefits that will be realized as a result of the dissemination of openly licensed resources required under this rule. Although the costs associated with this rule are relatively low, we believe the benefits from the resources that will be readily available to the public through broad dissemination will reach more than \$100 million. We explain these costs and benefits in more detail in the *Costs and Benefits* section of this *Regulatory Impact Analysis*. Therefore, this final action is "economically significant" and subject to review by OMB under section 3(f)(1) of Executive Order 12866. We have also reviewed these regulations under Executive Order 13563, which supplements and explicitly reaffirms the principles, structures, and definitions governing regulatory review established in Executive Order 12866. To the extent permitted by law, Executive Order 13563 requires that an agency—

(1) Propose or adopt regulations only upon a reasoned determination that their benefits justify their costs (recognizing that some benefits and costs are difficult to quantify);

(2) Tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives and taking into account—among other things and to the extent practicable—the costs of cumulative regulations;

(3) In choosing among alternative regulatory approaches, select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity);

(4) To the extent feasible, specify performance objectives, rather than the behavior or manner of compliance a regulated entity must adopt; and

(5) Identify and assess available alternatives to direct regulation, including economic incentives—such as user fees or marketable permits—to encourage the desired behavior, or provide information that enables the public to make choices.

Executive Order 13563 also requires an agency "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible." The Office of Information and Regulatory Affairs of OMB has emphasized that these techniques may include "identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes."

We are issuing these final regulations only on a reasoned determination that their benefits would justify their costs. In choosing among alternative regulatory approaches, we selected those approaches that maximize net benefits. Based on the analysis that follows, the Department believes that these final regulations are consistent with the principles in Executive Order 13563.

We also have determined that this regulatory action would not unduly interfere with State, local, and tribal governments in the exercise of their governmental functions.

Need for Regulatory Action, Potential Impacts, and Costs and Benefits

Need for Regulatory Action

Grantees under the Department's competitive grant programs create a number of copyrightable grant deliverables using Department grant funds that may have significant benefit for students, parents, teachers, school districts, States, institutions of higher education, and the public overall. These copyrightable works are wide ranging in nature and include instructional materials, personalized learning delivery systems, assessment systems,

language tools, and teacher professional development training modules, just to name a few. The Department's grantees creating these works include SEAs, LEAs, IHEs, and non-profit organizations and while the works are created under a specific grant program and therefore may target a specific school or group of students, the resources are such that other education stakeholders would significantly benefit from being able to readily and freely access them, use them, and in some cases, modify them to address their needs and goals.

As we note earlier, wide dissemination of these types of copyrightable works has not occurred under the Department's current regulations. We found very few instances in the last decade where program offices received a request to make grant-funded resources available under the Federal purpose license. However, we do have evidence of the impacts of open licensing in those competitive grant programs where open licensing was required or where the grantee voluntarily openly licensed its copyrightable works.

For example, the Department's First in the World (FITW) program has an existing open licensing requirement and thus provides a basis for estimating the potential benefit of these final regulations. In FY 2015, the Department awarded approximately \$60 million in FITW funds to 18 institutions of higher education, research organizations, and education agencies. This total included 16 FITW development grants intended to seed and evaluate early stage innovations, where new intellectual property would be created, and two validation grants to test at a broad scale existing interventions supported by significant evidence.

We estimate that the 16 development grantees will produce at least 1,400 new resources that would be openly licensed, approximately 90 resources per grantee. This estimate is based on work that the FY 2015 grantees project they will do over a four-year period and we generally anticipate that most resources would be available for dissemination and licensing in the last two years of the grant period. We also note that the total number of resources to be created across the 16 grantees varies widely as a result of the different activities and innovative approaches proposed in their projects. For example, CSU-Los Angeles is proposing to redesign every first year science course, resulting in the largest estimate of resources created, while Delaware State is proposing to develop an analytics framework and tool for matching

student interests to programs, which we believe would result in the creation of fewer resources. These two projects would impact approximately the same number of students, but one approach involves the creation of a large number of resources while another invests resources towards creation of a platform tool and a smaller number of resources associated with that tool.

Moreover, we believe that our estimates for the FITW grantees are likely to be higher than what we would expect for most other Department competitive grant programs, including those at the higher education level and those focused on elementary and secondary education. For example, in the higher education space, the Federal TRIO programs, which accounted for nearly half of all competitive awards to IHEs in FY 2015, have a more narrowly focused statutory purpose to provide basic services (e.g., tutoring, counseling, mentoring) to needy students using strategies and generally are less likely to produce copyrightable resources.

On the other hand, the Department also funds a number of activities that, under the final regulations, would be likely to produce significantly higher numbers of copyrightable resources than FITW grantees. For example, our National Language Resource Centers (LRC) program funds IHEs to research and develop resources for Less Commonly Taught Languages (LCTL), http://www.nflrc.org/lrc_broc_full.pdf. In the FY 2014–FY 2017 grant cycle, we awarded approximately \$2.8 million to 16 IHEs to support National Language Resource Centers (LRC) for research and development of resources for LCTL. There was no requirement for the grantees to openly license their resources, but one grantee did so of its own volition. Specifically, the University of Texas at Austin received approximately \$200,000 in FY 2015 to fund the Center for Open Educational Resources and Language Learning (COERLL), which creates fully openly licensed language and pedagogical materials for 16 languages, in addition to an open platform for discovery, remix, and repurposing of these language resources, and open research. The Department estimates that there are approximately 500 educational resources, including curricula, lessons, worksheets, assessments, textbooks, videos, podcasts, research studies, open apps for student learning, and interactive platform, materials, openly licensed on the COERLL Web site (<https://www.coerll.utexas.edu/coerll/>).

Based on the experience with UT-Austin, we believe that if an open license requirement were in place at the

time these awards were made to the 15 other grantees, we could assume that 15 times more language learning materials would be made available, or an additional 7,500 pieces of openly licensed content across the different language areas. Moreover, the enhanced availability of these materials potentially would have increased the impact of each of the individual centers by encouraging and supporting vibrant communities of practice focused on language instruction and learning at institutions that do not have the resources themselves. For example, this would have enabled discovery and use of resources created by the University of Indiana National African Resource Center, whose lack of broad dissemination leaves the public without information about what resources are available, where to access any materials, or how to seek permission to use any resources found. Since this is the only African language program in this cohort, the result is also the loss of resources for this entire language family.

Analysis of Potential Impacts

In FY 2016, the Department made new and continuation awards under roughly 110 unique discretionary competitive and non-competitive grant programs that totaled \$44.155 billion (excluding Pell). Of this total we estimate that 66 programs would be subject to the open licensing requirements of the final regulations. In addition to the Ready to Learn program, of the 43 programs (roughly \$39.932 billion in FY 2016) that we estimate would be exempt from open licensing, approximately 30 are non-competitive programs that allocate funds on the basis of a formula, and approximately 13 support competitive grants in which program funds are only used to support activities that clearly fit within one or more of the categorical exemptions in this rule (e.g., approximately 7 are competitive programs that only support fellowships or scholarship awards to individuals, and the other 6 provide support for general operating expenses).

Within the group of 66 competitive grant programs (which received \$4.223 billion in FY 2016) subject to the rule, not all grantees will produce intellectual property. For example, in the IDEA Personnel Development to Improve Services and Results for Children with Disabilities Program, many cohorts of grantees do not produce intellectual property at all and, therefore, this rule would not apply to those specific grantee cohorts. We note that the required activities in grant competitions often change over time, so the impact of

the rule may vary from one competition and cohort to the next.

In addition, in some cases, only a portion of activities and funding would result in the creation of resources that would be required to be openly licensed under the final regulations. For example, in the case of IES's Education Research, Development, and Dissemination program, grants are awarded competitively to support research programs that both create interventions and resources and peer-reviewed publications that arise from scientific research (receiving an exception). The Department also has developed an agency-level exceptions process where any program could ultimately be granted either partial or complete exception to the requirements of the final regulations. For all of these reasons, we estimate that the potential impact of these final regulations will be limited to a relatively small but important subset of the programs and projects funded by the Department in any given year. The final regulations will ensure that those programs and projects that do produce copyrightable educational materials and resources, including materials and resources proven effective through rigorous evaluation, make such resources freely and widely available to the public for the potential benefit of students, teachers, and schools across the nation.

Potential Costs and Benefits

The final regulations will not impose significant costs on entities that receive assistance through the Department's competitive grant programs. We note that annual variation in the total volume of new and continuing discretionary grant awards, as well as in the purposes and priorities associated with such grants, limits the precision of our estimates, but we estimate that the upper bound total cost of these regulations, over ten years, will be approximately \$22.6 million in labor fees, at an annualized rate of \$3.2 million per year, with no additional costs to support technology infrastructure. This estimate assumes a discount rate of three to seven percent.

Analysis of Technology Infrastructure Costs

While the benefits of the final regulations depend on the broad, accessible dissemination of copyrightable educational materials and resources, we estimate that such dissemination will result in no additional technology infrastructure costs to grantees subject to the open licensing requirements, for two reasons. First, the near-universal adoption of

digital tools and devices means that grantees will be creating and refining grant deliverables in digital formats that facilitate dissemination at no additional technology cost. Second, grantees may readily access and use a number of free methods to distribute digital openly licensed materials, including publicly available Web sites, content, or metadata repositories at no cost. Thus, we expect that grantees generally will be able to meet the dissemination requirements of the final regulations without incurring additional technology infrastructure costs.

Analysis of Technology Labor Costs

Even though there will generally be no additional costs associated with technology infrastructure, we estimate that over a period of 10 years there may be a likely high-end labor cost of \$22.6 million. This cost represents an upper bound estimate of the labor necessary to disseminate copyrightable products expected to be generated by all new ED grantees over a period of 10 years. To develop this upper bound estimate, we started by analyzing the volume of ED grantees that could potentially be impacted by the rule. In 2016, the most recent year preceding this final rule, the Department made approximately 5,470 new competitive grant awards. We know not all of these grantees will generate copyrightable products requiring dissemination under this final rule, so for purposes of this upper bound estimate we estimate that the Department will continue to make 5,470 new competitive grants each year, and that 30 percent of these awards will produce copyrightable content and consequently will be affected by the final rule. Further, we assume that for each year the rule is in effect after year one, every cohort of continuation awards will also be affected by the final rule. So, based on past data, we estimate that in the first year the final rule takes effect 1,641 grants will generate copyrightable products (30 percent of 5,470 total new grant awards made), and that by year four a total of 6,564 new and continuation awards would be impacted by the rule. Likewise, from years 4 through 10 this number plateaus and remains stable at 6,564.

Next, consistent with the estimates in the *Need for Regulatory Action* section, we estimate that each grantee will generate an average of approximately 90 copyrightable products requiring dissemination over the duration of their grant award (typically ED grantees have 4 or 5 year grant performance periods). As stated previously, we know that many non-exempt programs have a narrowly focused statutory purpose that

often involves provision of services (e.g., tutoring, counseling, mentoring), and that grantees under such programs are much less likely to produce copyrightable resources. But, again, for purposes of developing an upper bound estimate we analyzed a handful of grantees for which dissemination of products or content is a core purpose of their grant. Since dissemination is a core activity for grantees included in this sample, we know these grantees are likely to generate significantly more products requiring dissemination each year than grantees focusing on other activities such as service provision. Further, since it generally takes grantees some time to scale up their projects we assume, taking into account the past production rate of grantees, the following "outlay" rate (over an assumed project length of 4 years) for all grantees affected by the rule: Year One 5 copyrightable products produced and disseminated; Year Two 15 copyrightable products produced and disseminated; Year Three 20 copyrightable products produced and disseminated; and Year Four 50 copyrightable products produced and disseminated.

Assuming a total of 1,641 new competitive grantees would generate copyrightable product during the first year the rule is in effect, with each new grantee producing 5 total deliverables in the first year, the overall volume of resources requiring dissemination would be 8,205 (1,641 grantees producing an average of 5 copyrightable products each). In the second year, with new grantees expected to produce 15 total deliverables on average, the overall volume of copyrightable products would be 49,230 (3,282 grantees producing an average of 15 copyrightable products). In year three the overall volume would increase to 98,460 (4,923 grantees producing and average of 20 copyrightable products), and by year 4 this number would be 328,200 (6,564 grantees producing an average of 50 copyrightable products).

Finally, we estimate the likely time and salary that would be required for individual grantees to complete these requirements. As an example of the specific steps that might be necessary for an individual grantee to complete dissemination requirements envisioned in the final rule, the grantee would:

1. Use the Creative Commons License tool to select and apply the symbol to the work and generate the machine readable code and affix to the work (<http://www.creativecommons.org/chooser>)
2. Upload the resource and metadata, including the name, description,

license, publisher, and URL of the resource, to a shared learning resource repository or educator Web site:

We estimate the time for completion of Steps 1 and 2 to be approximately 30 minutes total per resource. We also recognize that the actual time for completion may be substantially shorter in the case of automated or bulk resource uploads. Assuming a pay rate of \$15/hour for data entry,⁵ new grantees generating 5 products in the first year would require approximately 2.5 hours per year in total labor to complete these steps at an annualized cost of approximately \$38 per grantee. By year four of implementation these estimates would plateau at approximately 45 hours required per year in total labor costs at an annualized cost of approximately \$675 per grantee.

Taking into account these assumptions, we estimate that a reasonable upper bound estimate of the maximum likely labor costs for all expected grantees to implement this final rule over a period of 10 years to be \$22.6 million, at an average total annual cost of \$2.26 million.

Other Potential Costs

Under current regulations, title to intellectual property acquired under Department grant funds, including copyright, vests in the grantee. With respect to copyrighted works, under 2 CFR 200.315(b), the Department also reserves a royalty-free, non-exclusive, and irrevocable right to reproduce, publish, or otherwise use for Federal purposes, and to authorize others to do so. No further action is necessary to designate these rights. Grantees may establish terms and conditions that permit use of their works to any member of the public, for each instance of use or for each created work. That the Department does not frequently exercise its Federal purpose license may create the false impression that any grantee can use the copyrighted works it creates with Federal grant funds for revenue generating purposes without any concern that third parties will have free access to those materials for Federal purposes.

This final rule requires that grantees openly license copyrightable grant deliverables created with Department funds to enable the public to use the work without restriction, so long as the public provides attribution to the copyright holder. While the type of

license will differ depending on the type of work created, applying an open license to a grant product typically involves the addition of a brief license identification statement or insertion of a license symbol or device. This could occur following the development of the product, at the same time that the disclaimer currently required under 34 CFR 75.620 is applied.

In this context, the regulations could reduce commercial incentives for an eligible entity to apply to participate in a competitive grant program. For example, we believe that under some competitive grant programs, grant recipients may produce materials that will be subsequently sold or licensed to third parties, such as publishing companies or others in the field. Although an open license does not preclude the grantee or any individual from developing commercial products and derivatives from the grant funded material, it could diminish certain competitive advantages that these grantees currently possess as the copyright holder. In addition, publishers and other third parties may incur loss of revenue since their commercial product will potentially compete with freely available versions of a similar product or may hesitate to enter into licensing agreements with grantees.

In response to these concerns, we note that derivative works built upon the Department funded copyrightable works using non-Department funds are considered new works to the extent of the modifications and are not covered by this regulation. As long as the grantee or subgrantee does not elect an open license with a noncommercial use requirement, using non-Department funds, any other entity can improve upon the grant-funded copyrightable works resulting in a derivative work that can be commercialized for financial gain or as part of a sustainability plan. For purposes of clarity, noncommercial licenses would not limit the ability of grantees to commercialize their own derivative works. It is the underlying Department grant-funded copyrightable works that will be freely available to the public. This allows multiple entities to enter into a commercial market for derivative works, potentially resulting in multiple derivative products. In the event that a grantee or subgrantee selects an open license with a noncommercial use requirement, members of the public would likely need to contact the grantee or subgrantee directly in order to obtain broader usage rights.

Nothing in this regulation prevents the grantee itself from entering this

marketplace, or from entering into private, commercial relationships with select commercial entities to distribute derivative works based upon the openly licensed works. In this case, the grantee's expertise as the original creator could allow it to retain market leverage, if its commercial product demonstrated market value that outcompeted other commercial derivatives. We believe that the grantee may be best positioned to create derivative works with the most economic value since it best understands both the present utility and future potential of the product and can anticipate the enhancements that would need to be taken to address unmet market needs.

Third, based on the Department's past grant making experiences, relatively few grantees have developed and marketed copyrighted works paid for with Department funds. In those cases, the open license requirement would not preclude their ability to continuously iterate and improve their product through copyrighted commercial derivatives.

We further note that in the competitions in which we required that grant-funded copyrightable works be openly licensed, it was not our experience that the requirement deterred grantees from applying or attracting partners. The two rounds of FITW grant competitions attracted over 500 applications in FY 2014 for 24 awards and over 300 applicants in FY 2015 for 18 awards. We have not heard from grantees that attracting partners has been or would be problematic. In addition, one of the considerations for granting a program level exception will be whether the open licensing requirement would impede the grantee's ability to form the required partnerships necessary to carry out the purpose of the grant. Thus, we believe we can address this concern through our exceptions process.

Benefits

We believe that the benefits of the open licensing requirement in the education field will significantly outweigh the costs our grantees might incur. The education sector has had considerable recent experience with successful implementation of open licenses as a mechanism that enables dissemination, broad access, and use. Open licenses have enabled the Department's own grantees, including the New York State Department of Education (NYSED) to have broad reaching impacts and enabled collaboration that has resulted in significant cost savings for SEAs, LEAs,

⁵ Unless otherwise noted, all hourly wages are non-loaded wage rates and are based on median hourly earnings as reported in the May 2014 National Occupational Employment and Wage Estimates from the Bureau of Labor Statistics (see www.bls.gov/oes/current/999201.htm).

and other stakeholders. In the case of NYSED, in 2010, the Department awarded New York State Department of Education (NYSED) approximately \$700 million in funding through the Race to the Top (RTT) grant program. NYSED invested \$12.9 million of that award in the creation of openly licensed curriculum in math and English Language Arts called “EngageNY” that was made freely available to the public under a Creative Commons Non-Commercial Share-Alike (CC-SA-NC) license.⁶ The EngageNY curriculum created by NYSED has been implemented statewide in New York. Because this curriculum is openly licensed, California, Louisiana, and Washington have adapted and used these materials statewide as a foundation for their standards aligned curriculum. Additionally, teachers at schools across the nation have been freely accessing, using, and adapting the EngageNY content.⁷

The open license has also enabled other organizations to create derivative works that enhance the original curriculum. For example, UnboundED, a non-profit educational organization, has adapted the original materials created by the grant, developed supplemental digital content, English language learner support, and is offering curated sets of these materials to the public at no cost. In addition to the content, UnboundED has developed new teacher professional development materials and offers paid teacher training on using these and other open resources. Thus, the open license has enabled a single investment to result in broad, national dissemination and stimulated a derivative marketplace of services and supplemental content. Since the EngageNY content is freely available, other teachers, SEAs, and LEAs do not have to duplicate investments in curricula in these same content areas, resulting in a more efficient use of resources.

In addition, between 2012 and 2015, the Office of Career Technical and Adult Education (OCTAE) invested national activities funds in accelerating the teaching and learning of STEM competencies through high-quality OERs and high-quality adult education instruction of STEM by funding adult educators who located, used, evaluated, and shared science and math OER that are appropriate for adult education classes. The project also developed

online professional development courses for teachers on how to use OER for math and science instruction in their adult education classrooms that are freely available in multiple repositories.⁸ Adult educators, working in Teacher User Groups located, used, evaluated, and shared science and math OERs that are appropriate for adult education classes. The reviews are posted within www.OERCommons.org, part of a newly formed “adult education” category with over 2,400 resources that can now be searched and accessed freely through this repository. The project also developed online professional development courses for teachers on how to use OER that are freely available in multiple national repositories for math and science instruction in their adult education classrooms. The Department’s investment of funding has resulted in a valuable resource that is searchable on public repositories and widely available to members of the public that would not have been otherwise reached by the Department’s National Activity Activities funds.

Under the National Language Resource Centers (LRC) grant program, the Department awarded funds to IHEs for research and development of resources for Less Commonly Taught Languages (LCTL). Though there was no specific requirement for the grantees to openly license their resources, one grantee did choose to do so. As previously discussed, the University of Texas at Austin created the Center for Open Educational Resources and Language Learning (COERLL), which creates fully openly licensed language and pedagogical materials for 16 languages, in addition to an open platform for discovery, remixing, and repurposing of these language resources, and open research. There are hundreds of different and diverse open materials, including curricula, lessons, worksheets, assessments, textbooks, videos, podcasts, research studies, open apps for student learning, and interactive platform, materials openly licensed on their Web site available under an open license and publically available on their Web site. These resources include language learning materials such as OER for K’ichee’ Maya, an indigenous language spoken in Guatemala; software that allows a group of users to annotate the same text together; a series of native speaker

surveys; a teacher professional development digital badge system; research on the perception and use of foreign language OER; and a Web site supporting a community of practice on Open Education in language learning.

Finally, the Department’s FITW grant program has required grantees to openly license intellectual property.⁹ The online remediation tool created by the Southern New Hampshire University under this grant program will help underprepared, underrepresented, and low-income working adults obtain a postsecondary credential and reduce the time to degree completion. Under the terms of the grant, the open license will allow any other IHE or adult education provider to use this tool to serve the working adults in its service areas, without incurring costs or duplicating efforts of development.

Elsewhere in the Federal government, as noted previously, the Department of Labor was the earliest user of open copyright licenses. The Department of Labor first piloted the open license requirement in FY 2011, through the \$2 billion TAACCCT grant program, which required all new resources created with TAACCCT funding to be made available under CC BY license.¹⁰ With this requirement, TAACCCT grantees have created thousands of openly licensed learning resources that have been downloaded and reused hundreds of thousands of times, including courses, curriculum, modules, and assessments that are freely available at <https://www.skillscommons.org>.¹¹ The open resources have enabled partnerships and collaborations between colleges, with other Federal agencies, State agencies, and even international education systems and expanded the investment beyond one single grantee to a broad range of stakeholders. For example, an openly licensed basic computer skills training online course (BITS)¹² created by the Wisconsin Technical College system is being used by the Ohio Workforce Investment board to provide computer training to adults at 89 American Job Centers statewide, has been used across the 15 community colleges in the Iowa Community College System, and is being customized by the Technical College System of Georgia. Competency based training along aerospace and energy career pathways developed by

⁹ <http://www2.ed.gov/programs/fitw/index.html> and <https://www.federalregister.gov/d/2014-11463/p-188>.

¹⁰ <https://creativecommons.org/licenses/by/4.0>.

¹¹ https://wdr.doleta.gov/directives/corr_doc.cfm?docn=4109.

¹² <https://www.skillscommons.org/handle/taaccct/6799>.

⁶ <https://creativecommons.org/licenses/by-nc-sa/3.0/>.

⁷ http://www.rand.org/content/dam/rand/pubs/research_reports/RR1500/RR1529/RAND_RR1529.pdf.

⁸ <https://lincs.ed.gov/programs/oerstem> and <http://www2.ed.gov/rschstat/eval/sectech/factsheet/open-education-resources-stem-teaching.html> <https://lincs.ed.gov/programs/oerstem> and <http://www2.ed.gov/rschstat/eval/sectech/factsheet/open-education-resources-stem-teaching.html>.

consortia of community colleges in Washington State and Arizona and major employers and industry partners were adapted through Rutas (Routes), a USAID-funded workforce development program operating along Mexico’s northern border. Relying on the open license, USAID grantees were able to translate the curricula into Spanish, rather than using funds to create their own materials from scratch, and created additional educational pathways suitable for the Mexican technical high school system.¹³ In each of these examples, an open license allowed uses that would have otherwise involved separate and duplicative investments, either by the same or separate Federal agency, by a State agency, or through other public funding, and has resulted in significant discount to the public. Because of these early successes, the Department of Labor expanded the requirement across the agency through regulation¹⁴ and is the first Federal Agency to require grantees to apply Creative Commons Attribution licenses to all grant funded materials.

Privately funded openly licensed projects also have a long history of creating educational resources with significant benefit to the public. For example, organizations such as Rice University’s OpenStax and California State University’s Multimedia Educational Resource for Learning and Online Teaching (MERLOT)¹⁵ have over 20 years of experience creating and curating OER and developing national

communities of practice for teaching and learning with digital resources. In public comments submitted by OpenStax, it was noted that its openly licensed college textbooks, first introduced in 2012, are currently used by more than 650,000 students in 1,600 educational institutions in the United States alone, saving those students \$66,000,000 in that short span of time.¹⁶ Despite not expending any resources on marketing activities, their textbooks have been downloaded by three million users worldwide. More than the broad dissemination of the textbooks, the open licenses have enabled an ecosystem of more than 38 different for-profit and not for-profit organizations to develop content in interactive and adaptive learning systems and through other ancillary products, providing greater reach than OpenStax could have achieved on its own. Similarly the Washington State Board for Community and Technical Colleges (SBCTC), the State agency that instituted the nation’s first open licensing policy, did so to address issues of educational access. Since its inception in 2010,¹⁷ the policy has been implemented for competitive awards funded or managed by SBCTC totaling more than \$25,000,000. The end products from these projects have been widely distributed with a CC BY license benefiting faculty members and the students across the country. For example, a textbook developed during one of the competitive grant projects has been downloaded 127,000 times and

students have purchased over 5,000 copies of the book for approximately \$15. These regulations build on the lessons learned through these efforts and seek to scale the benefits of these early successes across multiple Department competitive grant programs and education stakeholder groups.

In sum, we believe that these regulations will help to ensure the broader and more effective dissemination of Department grant-funded works to the public. Department stakeholders, such as LEAs, SEAs, IHEs, students, and others beyond direct grant recipients would be able to freely use and access the technology and high-quality materials. The framework established by these regulations will also result in greater transparency and efficiencies in how these stakeholders and other members of the public can access these valuable educational resources.

Accounting Statement

As required by OMB Circular A–4 (available at www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a004/a-4.pdf) in the following table we have prepared an accounting statement showing the classification of the expenditures associated with provisions of these final regulations. This table provides our best estimate of the changes in annual monetized costs, benefits, and transfers as a result of the final regulations.

Category	Benefits	
Broader and more effective dissemination of Department grant-funded works to the public	Not quantified	
Category	Cost	
	7%	3%
Labor Costs (dissemination activities)	\$3,181,331	\$3,218,633

Alternatives Considered

In determining whether to pursue regulatory action, we first considered other options that might accomplish our goals of enhancing dissemination and transparency. First, we considered whether we should establish an open licensing requirement as a supplemental priority, creating an authority for the Department to require open licensing in any appropriate grant program for fiscal year 2017 and future years. Although

supplemental priorities provide opportunities for program offices to select or exempt certain grant programs from this requirement as appropriate, it would only lead to change program-by-program. We believe that it will be far more efficient to establish the requirement as a general rule for our competitive grant programs, while also building in the program-level and grantee exceptions process when an exception is appropriate.

We also considered whether we could instead license all copyrightable material to the public using our Federal purpose license. This approach would allow for access to and dissemination of grant-funded resources. However, as previously discussed, the Federal purpose license requires significantly increased administrative capacity at the Department. From an administrative perspective, use of the Federal purpose license places the burden on the

¹³ http://blogs.iadb.org/energia_es/2016/02/17/how-to-build-a-renewable-energy-future-in-mexico/; <http://www.iyfnet.org/blog/poised-take-mexican-youth-prepare-aerospace-careers>.

¹⁴ www.federalregister.gov/articles/2015/12/30/2016-32725/uniform-administrative-requirements-

[cost-principles-and-audit-requirements-for-federal-awards](#).

¹⁵ <https://www.merlot.org>.

¹⁶ <https://openstax.org/impact>.

¹⁷ www.sbctc.edu/resources/documents/colleges-staff/programs-services/elearning-open-education/open-licensing-policy-board-resolution.pdf.

Authorizing legislation: RCW 28A.300.803 created the Open Education Resources project to create openly licensed K–12 resources aligned to Common Core standards: <http://app.leg.wa.gov/rcw/default.aspx?cite=28A.300.803>. See also: <http://www.k12.wa.us/Communications/PressReleases2016/GoOpen.aspx>.

Department to exercise the license for each program and grantee and copyrightable work, and is therefore not an efficient approach. Each grantee already has direct control over its work, can use Department grant funds to implement the open licensing requirement, and is in a far better position than the Department to make the work publicly available directly. Therefore, we believe this final rule will greatly expand the scope of dissemination compared with what the Department could achieve.

The Department recognizes that the variety of our programs require grantees to adopt a wide range of strategies for implementation. As previously discussed, we believe this final rule advances our goals of broad dissemination by requiring an open license that does not restrict the distribution of derivative works, such as through commercial channels, or create additional restrictions on future licensing of derivative works not created with Department grant funds. We recognize that in some instances, placing limitations on the license (e.g. non-commercial licenses) or restricting the ability to use/reuse materials may be appropriate and we are committed to working with grantees to develop licensing strategies that are aligned to their grant projects and that are consistent with the goals of the final rule.

We also recognize that there will be cases where implementation of the requirements of this regulation would be inconsistent with statutory requirements of the grant programs or the Department's general goals. In cases such as those, the Secretary retains the ability to make exceptions to the open licensing requirement for those programs on a case-by-case basis under 2 CFR 3474.5(a)¹⁸ and 2 CFR 200.102(b) and (c).

Paperwork Reduction Act of 1995

Section 3474.20(c) contains an information collection requirement. Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3507(d)), the Department has submitted a copy of this section as part of a change request to OMB for its review under OMB Control Number(s) 1894-0006, and 1894-0009 to reflect this new requirement. There will be no increase or decrease in

burden. This change request has been approved by OMB.

A Federal agency may not conduct or sponsor a collection of information unless OMB approves the collection under the PRA and the corresponding information collection instrument displays a currently valid OMB control number. Notwithstanding any other provision of law, no person is required to comply with, or is subject to penalty for failure to comply with, a collection of information if the collection instrument does not display a currently valid OMB control number.

Intergovernmental Review: These final regulations affect direct grant programs of the Department that are subject to Executive Order 12372 and the regulations in 34 CFR part 79. One of the objectives of the Executive order is to foster an intergovernmental partnership and a strengthened federalism. The Executive order relies on processes developed by State and local governments for coordination and review of proposed Federal financial assistance.

This document provides early notification of our specific plans and actions for these programs.

Assessment of Educational Impact

In the NPRM we requested comments on whether the proposed regulations would require transmission of information that any other agency or authority of the United States gathers or makes available. We received no comments.

Accessible Format: Individuals with disabilities can obtain this document in an accessible format (e.g., braille, large print, audiotape, or compact disc) on request to the person listed under **FOR FURTHER INFORMATION CONTACT**.

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You may also access documents of the Department published in the **Federal Register** by using the article search feature at: www.federalregister.gov. Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

List of Subjects in 2 CFR Part 3474

Accounting, Administrative practice and procedure, Adult education, Aged, Agriculture, American Samoa, Bilingual education, Blind, Business and industry, Civil rights, Colleges and universities, Communications, Community development, Community facilities, Copyright, Credit, Cultural exchange programs, Educational facilities, Educational research, Education, Education of disadvantaged, Education of individuals with disabilities, Educational study programs, Electric power, Electric power rates, Electric utilities, Elementary and secondary education, Energy conservation, Equal educational opportunity, Federally affected areas, Government contracts, Grant programs, Grant programs-agriculture, Grant programs-business and industry, Grant programs-communications, Grant programs-education, Grant programs-energy, Grant programs-health, Grant programs-housing and community development, Grant programs-social programs, Grant administration, Guam, Home improvement, Homeless, Hospitals, Housing, Human research subjects, Indians, Indians-education, Infants and children, Insurance, Intergovernmental relations, International organizations, Inventions and patents, Loan programs, Loan programs social programs, Loan programs-agriculture, Loan programs-business and industry, Loan programs-communications, Loan programs-energy, Loan programs-health, Loan programs-housing and community development, Manpower training programs, Migrant labor, Mortgage insurance, Nonprofit organizations, Northern Mariana Islands, Pacific Islands Trust Territories, Privacy, Renewable Energy, Reporting and recordkeeping requirements, Rural areas, Scholarships and fellowships, School construction, Schools, Science and technology, Securities, Small businesses, State and local governments, Student aid, Teachers, Telecommunications, Telephone, Urban areas, Veterans, Virgin Islands, Vocational education, Vocational rehabilitation, Waste treatment and disposal, Water pollution control, Water resources, Water supply, Watersheds, Women.

Dated: January 11, 2017.

John B. King, Jr.,

Secretary of Education.

For the reasons discussed in the preamble, the Secretary amends part 3474 of title 2 of the Code of Federal Regulations as follows:

¹⁸ 2 CFR 3474.5(a), “. . . the Secretary of Education, after consultation with OMB, may allow exceptions for classes of Federal awards or non-Federal entities subject to the requirements of this part when exceptions are not prohibited by statute. However, in the interest of maximum uniformity, exceptions from the requirements of this part will be permitted only in unusual circumstances.”

PART 3474—UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS FOR FEDERAL AWARDS

■ 1. The authority citation for part 3474 continues to read as follows:

Authority: 20 U.S.C. 1221e-3 and 3474 unless otherwise noted.

■ 2. Add § 3474.20 to read as follows:

§ 3474.20 Open licensing requirement for competitive grant programs.

For competitive grants awarded in competitions announced after February 21, 2017:

(a) A grantee or subgrantee must openly license to the public the rights set out in paragraph (b)(1) of this section in any grant deliverable that is created wholly or in part with Department competitive grant funds, and that constitutes a new copyrightable work; provided, however, that when the deliverable consists of modifications to pre-existing works, the license shall extend only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works.

(b)(1) With respect to copyrightable work identified in paragraph (a) of this section, the grantee or subgrantee must grant to the public a worldwide, non-exclusive, royalty-free, perpetual, and irrevocable license to—

(i) Access, reproduce, publicly perform, publicly display, and distribute the copyrightable work;

(ii) Prepare derivative works and reproduce, publicly perform, publicly display and distribute those derivative works; and

(iii) Otherwise use the copyrightable work, provided that in all such instances attribution is given to the copyright holder.

(2) Grantees and subgrantees may select any open licenses that comply

with the requirements of this section, including, at the grantee's or subgrantee's discretion, a license that limits use to noncommercial purposes. The open license also must contain—

(i) A symbol or device that readily communicates to users the permissions granted concerning the use of the copyrightable work;

(ii) Machine-readable code for digital resources;

(iii) Readily accessed legal terms; and

(iv) The statement of attribution and disclaimer specified in 34 CFR 75.620(b).

(c) A grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate the openly licensed copyrightable works identified in paragraph (a) of this section.

(d)(1) The requirements of paragraphs (a), (b), and (c) of this section do not apply to—

(i) Grants that provide funding for general operating expenses;

(ii) Grants that provide support to individuals (e.g., scholarships, fellowships);

(iii) Grant deliverables that are jointly funded by the Department and another Federal agency if the other Federal agency does not require the open licensing of its grant deliverables for the relevant grant program;

(iv) Copyrightable works created by the grantee or subgrantee that are not created with Department grant funds;

(v) Peer-reviewed scholarly publications that arise from any scientific research funded, either fully or partially, from grants awarded by the Department;

(vi) Grantees or subgrantees under the Ready To Learn Television Program, as defined in the Elementary and Secondary Education Act of 1965, as amended, Title II, Subpart 3, Sec. 2431, 20 U.S.C. 6775;

(vii) A grantee or subgrantee that has received an exception from the Secretary under 2 CFR 3474.5 and 2 CFR 200.102 (e.g., where the Secretary

has determined that the grantee's dissemination plan would likely achieve meaningful dissemination equivalent to or greater than the dissemination likely to be achieved through compliance with paragraph (a) or (b) of this section, or compliance with paragraph (a) or (b) of this section would impede the grantee's ability to form the required partnerships necessary to carry out the purpose of the grant); and

(viii) Grantees or subgrantees for which compliance with these requirements would conflict with, or materially undermine the ability to protect or enforce, other intellectual property rights or obligations of the grantee or subgrantee, in existence or under development, including those provided under 15 U.S.C. 1051, *et seq.*, 18 U.S.C. 1831-1839, and 35 U.S.C. 200, *et seq.*

(2) The requirements of paragraphs (a), (b), and (c) of this section do not alter any applicable rights in the grant deliverable available under 17 U.S.C. 106A, 203 or 1202, 15 U.S.C. 1051, *et seq.*, or State law.

(e) The license set out in paragraph (b)(1) of this section shall not extend to any copyrightable work incorporated in the grant deliverable that is owned by a party other than the grantee or subgrantee, unless the grantee or subgrantee has acquired the right to provide such a license in that work.

(f) *Definition.* For purposes of this section,

(1) A *grant deliverable* is a final version of a work, including any final version of program support materials necessary to the use of the deliverable, developed to carry out the purpose of the grant, as specified in the grant announcement.

(2) A *derivative work* means a *derivative work* as defined in the Copyright Act, 17 U.S.C. 101.

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