

Non-Precedent Decision of the Administrative Appeals Office

In Re: 19519342 Date: DEC. 06, 2021

Appeal of Texas Service Center Decision

Form I-140, Immigrant Petition for Alien Worker (Advanced Degree, Exceptional Ability, National Interest Waiver)

The Petitioner, a geophysicist engineer, seeks second preference immigrant classification as an individual of exceptional ability in the sciences, arts or business, as well as a national interest waiver of the job offer requirement attached to this EB-2 classification. See Immigration and Nationality Act (the Act) section 203(b)(2), 8 U.S.C. § 1153(b)(2). After a petitioner has established eligibility for EB-2 classification, U.S. Citizenship and Immigration Services (USCIS) may, as matter of discretion, grant a national interest waiver if the petitioner demonstrates: (1) that the foreign national's proposed endeavor has both substantial merit and national importance; (2) that the foreign national is well positioned to advance the proposed endeavor; and (3) that, on balance, it would be beneficial to the United States to waive the requirements of a job offer and thus of a labor certification. Matter of Dhanasar, 26 I&N Dec. 884 (AAO 2016).

The Director of the Texas Service Center determined that the Petitioner qualifies for the underlying classification, that her proposed endeavor has substantial merit, and that she is well positioned to advance her endeavor. Nevertheless, the Director denied the petition, concluding that the evidence did not establish that the proposed endeavor is of national importance or that a waiver of the requirement of a job offer would be in the national interest. Accordingly, the Director determined that the Petitioner had not established eligibility for a national interest waiver.

The matter is now before us on appeal. The Petitioner reasserts her eligibility, arguing that the Director did not properly weigh the evidence and erred in the decision. She submits a brief and additional evidence in support of her arguments.

In these proceedings, it is the Petitioner's burden to establish eligibility for the requested benefit. Section 291 of the Act, 8 U.S.C. § 1361. Upon de novo review, we will dismiss the appeal.

#### I. LEGAL FRAMEWORK

To establish eligibility for a national interest waiver, a petitioner must first demonstrate qualification for the underlying EB-2 visa classification (emphasis added), as either an advanced degree professional or an individual of exceptional ability in the sciences, arts, or business. Because this

classification requires that the individual's services be sought by a U.S. employer, a separate showing is required to establish that a waiver of the job offer requirement is in the national interest.

Section 203(b) of the Act sets out this sequential framework:

- (2) Aliens who are members of the professions holding advanced degrees or aliens of exceptional ability.
  - (A) In general. Visas shall be made available . . . to qualified immigrants who are members of the professions holding advanced degrees or their equivalent or who because of their exceptional ability in the sciences, arts, or business, will substantially benefit prospectively the national economy, cultural or educational interests, or welfare of the United States, and whose services in the sciences, arts, professions, or business are sought by an employer in the United States.
  - (B) Waiver of job offer
    - (i) National interest waiver.... [T]he Attorney General may, when the Attorney General deems it to be in the national interest, waive the requirements of subparagraph (A) that an alien's services in the sciences, arts, professions, or business be sought by an employer in the United States.

Section 101(a)(32) of the Act provides that "[t]he term 'profession' shall include but not be limited to architects, engineers, lawyers, physicians, surgeons, and teachers in elementary or secondary schools, colleges, academics, or seminaries."

The regulation at 8 C.F.R. § 204.5(k)(2) contains the following relevant definitions:

Advanced degree means any United States academic or professional degree or a foreign equivalent degree above that of baccalaureate. A United States baccalaureate degree or a foreign equivalent degree followed by at least five years of progressive experience in the specialty shall be considered the equivalent of a master's degree. If a doctoral degree is customarily required by the specialty, the alien must have a United States doctorate or a foreign equivalent degree.

Exceptional ability in the sciences, arts, or business means a degree of expertise significantly above that ordinarily encountered in the sciences, arts, or business.

Profession means one of the occupations listed in section 101(a)(32) of the Act, as well as any occupation for which a United States baccalaureate degree or its foreign equivalent is the minimum requirement for entry in the occupation.

In addition, the regulation at 8 C.F.R. § 204.5(k)(3)(ii) sets forth the specific evidentiary requirements for demonstrating eligibility as an individual of exceptional ability. A petitioner must submit

documentation that satisfies at least three of the six categories of evidence listed at 8 C.F.R. § 204.5(k)(3)(ii).

Furthermore, while neither the statute nor the pertinent regulations define the term "national interest," we set forth a framework for adjudicating national interest waiver petitions in the precedent decision Matter of Dhanasar, 26 I&N Dec. 884 (AAO 2016). In announcing this new framework, we vacated our prior precedent decision, Matter of New York State Department of Transportation, 22 I&N Dec. 215 (Act. Assoc. Comm'r 1998). Dhanasar states that after a petitioner has established eligibility for EB-2 classification, U.S. Citizenship and Immigration Services (USCIS) may grant a national interest waiver as matter of discretion. See also Poursina v. USCIS, 936 F.3d 868, 2019 WL 4051593 (9th Cir. 2019) (finding USCIS' decision to grant or deny a national interest waiver to be discretionary in nature). As a matter of discretion, the national interest waiver may be granted if the petitioner demonstrates: (1) that the foreign national's proposed endeavor has both substantial merit and national importance; (2) that the foreign national is well positioned to advance the proposed endeavor; and (3) that, on balance, it would be beneficial to the United States to waive the requirements of a job offer and thus of a labor certification. See Dhanasar, 26 I&N Dec. at 888-91, for elaboration on these three prongs.

#### II. ANALYSIS

# A. Advanced Degree

The Petitioner did not assert and the Director did not analyze the Petitioner's eligibility as an individual of exceptional ability. The Director found that the Petitioner qualifies for the underlying classification as a professional holding an advanced degree; however the decision contained no analysis to support that finding. In order to show that a petitioner holds a qualifying advanced degree, the petition must be accompanied by "[a]n official academic record showing that the [individual] has a United States advanced degree or a foreign equivalent degree." 8 C.F.R. § 204.5(k)(3)(i)(A). Alternatively, a petitioner may present "[a]n official academic record showing that the [individual] has a United States baccalaureate degree or a foreign equivalent degree, and evidence in the form of letters from current or former employer(s) showing that the [individual] has at least five years of progressive post-baccalaureate experience in the specialty." 8 C.F.R. § 204.5(k)(3)(i)(B).

The record contains evidence that the Petitioner attended a university in Venezuela and earned a degree in geophysical engineering in 2002. The Petitioner initially submitted a 2018 Morningside Evaluations academic equivalency evaluation, which contained the credential evaluator's conclusion that the Petitioner's degree is the equivalent of a U.S. bachelor's degree in geophysics. The evaluator arrived at this conclusion based upon "the studies undertaken, the number of credit hours earned, the number of years of coursework, the grades earned for coursework and the final diploma." However, the record does not contain the Petitioner's transcripts showing her courses, grades, credit hours, or the number of years of coursework. Therefore, we are unable to conduct an independent review of the evidence upon which the evaluator bases her conclusions. The Director specifically noted this evidentiary shortcoming in the request for evidence (RFE). Nevertheless, the Petitioner did not submit transcripts in her RFE response. Instead, the Petitioner's RFE response contained three new academic equivalency evaluations. A 2020 evaluation from Morningside Evaluations contains the same conclusions as the previous 2018 evaluation, but states that the Petitioner earned her degree after four years of study, whereas the 2018 version states

that the degree required five years to complete. In her RFE response, the Petitioner also submitted a
Validential Corp. evaluation which reaches the conclusion that the Petitioner holds the equivalent of a
U.S. bachelor's degree in geophysical engineering. The Validential evaluation includes a course list and
the evaluator's assessment of the U.S. equivalency of the Petitioner's grades in each of the courses. It
also states that the evaluator's conclusions are based on the Petitioner's transcripts and grades, which
were issued by her university in October 2002. Also in support of the U.S. equivalency of her education,
the Petition er submitted an evaluation from a professor at University.
concluded that the Petitioner earned her degree after four years of study, but that in
combination with her experience, she possesses the equivalent of a master's degree in geophysics.
However, USCIS does not accept equivalency evaluations of experience and therefore, we consider and
analyze the academic equivalency portion of the evaluation only. As with the other evaluators
states that he formed his opinions based upon an examination of the Petitioner's transcripts. In
considering the academic portion only relies upon Morningside Evaluation's conclusions and
does not appear to make an independent finding concerning the academic equivalency of the Petitioner's
education.

In viewing the evaluations collectively, it is unclear to us whether the Petitioner's purported degree is in geophysics as a science or in geophysical engineering, as well as whether she earned her degree after four years of study or five. For these reasons, we conclude that these evaluations are of little probative value in this matter. We may, in our discretion, use an evaluation of a person's foreign education as an advisory opinion. Matter of Sea, Inc., 19 I&N Dec. 817, 820 (Comm'r 1988). However, where an opinion is not in accord with other information or is in any way questionable, we may discount or give less weight to that evaluation. Id. Here, the evaluators arrive at different conclusions concerning the Petitioner's degree and the number of years of study. None of the evaluators offer sufficient analysis or support for the conclusions contained in their evaluation and we have little corroborating evidence for the factual assertions contained therein. As such, we conclude that these evaluations are insufficient to establish the academic equivalency of the Petitioner's foreign education.

In addition to the discrepancy among the various evaluations concerning the number of years of study, the Petitioner's own personal statement indicates that she pursued undergraduate education from 1995 to 2002, which suggests seven years of study. Therefore, it is unclear whether the Petitioner underwent four, five, or seven years of study to earn a degree in 2002. The Petitioner has not provided sufficient or consistent documentaion concerning her Venezuelan education. Accordingly, we conclude that the record does not reflect that she holds the U.S. equivalency of a bachelor's degree.

As the record does not establish the U.S. equivalency of the Petitioner's foreign education, we need not discuss whether the Petitioner's employment letters comply with the regulatory requirements at 8 C.F.R. § 204.5(k)(3)(i)(B). We withdraw the Director's implicit finding that the Petitioner has established that she qualifies as a member of the professions holding an advanced degree. Instead, we conclude that the Petitioner has not met her burden in this regard.

## B. National Importance

As the Petitioner has not established eligibility for the underlying immigrant classification, the issue of the national interest waiver is moot. The waiver is available only to foreign workers who otherwise qualify for classification under section 203(b)(2)(A) of the Act. While this shortcoming alone merits the

dismissal of the Petitioner's appeal, we will nevertheless examine additional eligibility issues we have observed. For the following reasons, we agree with the Director that the evidence does not establish the Petitioner's proposed endeavor has national importance. Although we do not discuss each piece of evidence individually, we have reviewed and considered each one.

The Petitioner described herself as a geophysicist engineer with over thirteen years of experience in
the oil and gas industry, working for major oil companies including
a company in Venezuela, and of which a major client is
. In the initial filing, the Petitioner described her proposed endeavor a
continuing her work in the field of oil and gas, including by evaluating and optimizing the developmen
of oil and gas fields. She further noted that she will "continue her work for leading companies in the
United States and assist them in developing more advanced solutions to optimize oil and gas recovery.'
In her personal statement, she wrote that she intends to engage in research and will continue to apply
her expertise with a long-term research goal of conducting a comprehensive study to explore
unconventional reservoirs and identify natural fractures present in them. Specifically, her future
research efforts will be directed toward the following goals, which the Petitioner described in verbatin
as follows:

- Quantitative interpretation combining geologic and engineering data, forward geophysical models, seismic inversion, and rock physics in order to achieve increases confidence in their oil reserves and the geology of their oilfields;
- Risk assessments of prospects in conventional and unconventional reservoirs in order to reduce the risk of high investments in the development of projects and plan; and
- Play evaluation and recommendations for new drilling opportunities to find and develop new energy reserves.

The Petitioner provided numerous assertions concerning the national importance of her proposed endeavor, including that it will benefit energy interests, energy security, and U.S. economic interests; provide invaluable planning and drilling studies based on reservoir characterization and interpretation of scientific data; ensure the affordability of fuel; reduce the United States' dependence on foreign oil; increase oil and gas production; and generate revenue.

In various letters of recommendation, her former colleagues identified examples of how her past achievements benefited her employers and their clients. For instance, the authors wrote statements such as:

•	"These studies were delivered and presented to,"
•	"[T]hese study methods have been used by other geophysical professionals within
	and is well as in fields such as in, Mexico."
•	"Based on [the Petitioner's work [the general general made decisions at that time (sic) were
	of high impact for both land land land land
•	"Based on [the Petitioner's] work, incorporated new wells in drilling portfolio hoping
	to increase the current production"
•	"Based on her work in this project, placed 4 new locations in this oilfield"

While the authors of the letters indicate that her work benefitted the oil and gas industry as a whole, they provided examples of how she impacted individual employers, clients, or projects. Additionally, although the authors hold the Petitioner's personal and professional qualities in high regard, none of them demonstrates knowledge of the Petitioner's proposed endeavor. This is important, as the Petitioner's personal and professional qualifications relate to the second prong of the Dhanasar framework, which "shifts the focus from the proposed endeavor to the foreign national." Id. at 890. The issue here is whether the specific endeavor that the Petitioner proposes to undertake has national importance under Dhanasar's first prong. The submission of reference letters supporting the petition is not presumptive evidence of eligibility; USCIS may evaluate the content of those letters so as to determine whether they support the petitioner's eligibility. *See 1756, Inc. v. U.S. Att'y Gen.*, 745 F. Supp. 9, 15 (D.D.C. 1990) (holding that an agency need not credit conclusory assertions in immigration benefits adjudications). See also Matter of V-K-, 24 I&N Dec. 500, n.2 (BIA 2008) (noting that expert opinion testimony does not purport to be evidence as to "fact"). Accordingly, we conclude that these letters offer little probative value in this matter.

The Director issued a request for evidence (RFE), notifying the Petitioner that she had not established, among other things, that the proposed endeavor has national importance. The Director specifically noted that the evidence did not demonstrate that the Petitioner's work would sufficiently extend beyond the company or employer and its clients to impact the industry or field more broadly such that the work would be considered of national importance. In response, the Petitioner added to her proposed endeavor by stating that she will continue working for major oil field service companies and "intends to continue developing and implementing her methodologies to reduce risks and increase certainty when drilling." She provided a work plan that "includes the participation of diverse specialists in geosciences and [oil and gas] well development," which she concluded will create jobs for U.S. workers. The Petitioner noted that her plan "contributes to increasing the daily production of oil/gas and consequently to incorporating higher reserves." She explained that a has expressed interest in her project "by allowing her to use their licenses U.S. company, of specialized software platforms to run new parameters for seismic attributes and add new process to her workflow." In addition, the Petitioner again asserted that her work would ensure the affordability of fuel for Americans nationwide, reduce U.S. dependence on foreign oil, and provide widespread energy security and economic benefits to the United States.

The Petitioner specifically noted that the Director's RFE did not take into account that she performed work for major oil field service companies and that their clients are all major oil and gas companies which supply oil and gas across the United States and internationally. In support of her arguments, the Petitioner submitted articles concerning the prominence of \_\_\_\_\_\_\_, and \_\_\_\_\_\_\_, and \_\_\_\_\_\_\_, however, as these articles do not discuss or address the proposed endeavor, they offer little to aid our analysis. In determining national importance, the relevant question is not the importance of the industry or profession in which the individual will work; instead, we focus on the "the specific endeavor that the foreign national proposes to undertake." See Dhanasar, 26 I&N Dec. at 889. While the fields of geophysical engineering as well as oil and gas are important, the Petitioner has not offered sufficient or persuasive evidence of how her proposed endeavor is nationally important, as opposed to the fields in general.

The Petitioner highlighted her past successes in order to suggest that her proposed endeavor will make a similar impact. She asserted that her studies provided structural models to optimize drilling plans

and as a result of her work, companies including,,	and		have
increased confidence in their oil reserves and the geology of their oil fields	, while		and
have also increased their production levels. Moreover, she asserted	that the	ese comp	an ies
have new oil and gas opportunities as a result of her work. Finally, she asserted	I that h	er past wo	ork in
academia enabled new professionals in geophysics to apply their knowledge in	reserv	oir studie	es for
the benefit of the industry and the national economy.			

Although the Petitioner provided an RFE response, the Director ultimately determined that the evidence was insufficient to establish the national importance of the proposed endeavor because the evidence did not convey that the Petitioner's proposed activities would have a broader impact. The Director acknowledged that while the Petitioner's work would undoubtedly be valuable to her employer or clients, she concluded that the record did not demonstrate that her endeavor would be primarily responsible for lowering gas prices, that it would impact the nation's dependence on foreign oil, that it would otherwise impact the field of endeavor more broadly, or that it would have national or global implications or substantial positive economic effects commensurate with national importance. We agree.

Based upon the evidence provided, it does not appear as though the Petitioner is currently employed. It is unclear from the record whether the Petitioner intends to engage in a job search to find support for her research endeavors, whether she intends to work as an independent contractor who is hired by U.S. companies, or whether she intends to work as an in-house geophysicist or researcher within a particular company or companies. This is important, as the Petitioner's employment or method of carrying out her proposed endeavor would necessarily affect the prospective impact of it. In Dhanasar, we held that a petitioner must identify "the specific endeavor that the foreign national proposes to undertake." Id. at 889. Here, the record is insufficient to establish the exact nature of her proposed endeavor.

Although the proposed endeavor itself is unclear, we nevertheless examine the record to determine the national importance of the endeavor insofar as it is presented. In Dhanasar, we noted that "we look for broader implications" of the proposed endeavor and that "[a]n undertaking may have national importance for example, because it has national or even global implications within a particular field." Id. at 889. The Petitioner appears to conflate the size or reach of a company and its clients with the national importance of the proposed endeavor. Although the oil and gas companies and their clients provide widespread products and services, the primary benefit of the Petitioner's proposed endeavor appears to accrue to the companies and clients for whom she would work. It is not apparent, for instance, how the studies and data collection she performs on a specific well or field would affect the oil and gas industry as a whole, as opposed to the specific company who owns and operates the well or field. While targeted drilling plans may result in increased oil production, the Petitioner has not offered a sufficiently direct link between her work and any positive impacts to the U.S. economy or U.S. consumers as a result of the increase in oil production. Without sufficient information or evidence regarding any projected U.S. economic impact or job creation attributable to her future work, the record does not show that benefits to the U.S. regional or national economy resulting from the Petitioner's endeavor would reach the level of "substantial positive economic effects" contemplated by Dhanasar. Id. at 890. While we acknowledge the Petitioner's claims, the evidence does not substantiate a finding that her proposed endeavor activities as geophysicist engineer would have national importance.

The Petitioner claimed that her methods are novel and original; however, the record does not reflect that the methods she used were not already available or did not already exist, even if not routinely used. While she may have collected and analyzed data that had not been previously collected or analyzed before, the record does not sufficiently substantiate a finding that her method of collection and analysis is novel or original, nor has she adequately explained how such work impacted the field as a whole. The Petitioner claimed to have developed an innovative mitigation plan using seismic attributes, yet the record does not indicate that the technology she used is new or novel or that her plan was actually innovative. Rather, the record suggests that the Petitioner applied geophysical engineering services to a geographical region for which a specific level of geophysical data had not been previously collected and analyzed before. Accordingly, a drilling plan formulated around new data does not reflect an innovation in the field of geophysics as much as it demonstrates the benefit of employing a geophysicist to collect and analyze data that would inform such a plan. Furthermore, the record does not reflect that other geophysical engineers outside of her specific employer, their clients, and their projects have access to or any demonstrable use for the plans she created. In fact, the Petitioner acknowledges that the work she performed on previous projects is proprietary. To further illustrate, the Petitioner claimed to have applied a mathematical algorithm to data to produce studies beneficial to a particular oil company's drilling plans, but it is not apparent that the Petitioner altered the field of oil and gas with novel or original algorithms, nor is it apparent that her studies offered benefits that extended beyond the specific well, project, employer, and client.

The Petitioner also claimed that her work impacted the field of oil and gas because she presented her work at studies and conferences, as well as through publications, including her undergraduate thesis. While we recognize that research adds information to the pool of knowledge and that it may be accepted for publication, presentation, or academic credit, the record nevertheless does not demonstrate that the Petitioner's research or presentations have impacted the field at a level commensurate with national importance. For example, the record contains evidence that the Petitioner presented research at a conference in \_\_\_\_\_ Cuba and that this research concerned the mapping of a particular area of Venezuela. However, it is not apparent that this study had implications outside of that particular area or for the field of oil and gas as a whole.

As an undergraduate student, the Petitioner claimed to have offered a robust and different interpretation of seismic work; however, the record does not indicate that she created a new methodology or integration, as opposed to simply using a preexisting one that may have been seldomly applied. Moreover, the record does not support a finding that the Petitioner has impacted the field as whole through her publications and citation record, particularly since finishing her undergraduate studies. Although the Petitioner submitted evidence that she published a research abstract and presented the abstract at a September 2019 conference of geophysicists, the publication and presentation occurred after the filing of the petition and therefore do not establish eligibility at the time of filing. Even if the abstract had been published and presented prior to this petition's filing date, it would not establish eligibility under this prong of Dhanasar because the evidence does not substantiate a finding that the work influenced the field as a whole or had an impact commensurate with national importance.

On appeal, the Petitioner reasserts her eligibility and presents additional articles about the value of geophysical engineering and science in the oil and gas industry. Here, the Petitioner confuses the importance of her field with the importance of her specific proposed endeavor. None of the articles

reference her proposed endeavor and therefore, they are not probative of its national importance. Although the Petitioner asserted that the Director singled out specific sentences and phrases while overlooking her other evidence and arguments, we do not find support for the Petitioner's assertions. Simply because the Director did not identify or mention each piece of evidence or argument does not mean that they were not considered. In our review, we conclude that the Director cited specific examples that the Petitioner provided in order to illustrate an overall evidentiary shortcoming in the record.

Upon a review of the evidence in its totality, we conclude that the Petitioner's proposed work does not meet the first prong of the Dhanasar framework. The Petitioner has not offered sufficient evidence to support her claims that the endeavor has national importance.

## C. Well Positioned to Advance the Proposed Endeavor

Because the documentation in the record does not establish the national importance of the proposed endeavor as required by the first prong of the Dhanasar precedent decision, the Petitioner has not demonstrated eligibility for a national interest waiver. Further analysis of her eligibility under the second prong is unnecessary. Nevertheless, we briefly discuss the second prong as the Director's decision reflects a determination that the Petitioner met this prong. Here, the Director provided very little analysis to support the conclusion that the Petitioner is well positioned to advance her endeavor.

The Director referenced the Petitioner's education, experience, conference presentations, and peer review work as reasons for the conclusion that the Petitioner is well positioned to advance the proposed endeavor. However, as previously discussed, the record is inconsistent and insufficient concerning what education the Petitioner obtained. In addition, the conference presentation in 2019 and her peer review activities that began in 2020 do not establish eligibility at the time of filing, as both activities came about after the filing of the petition in 2018. Accordingly, such factors do not establish that the Petitioner is well positioned to advance her endeavor. Finally, it is not apparent that the Petitioner is currently employed, which casts doubt on her ability to offer her proposed endeavor services. Although the record contains has provided her with research tools, there is little information on how some indication that this collaboration functions or how long it will last. The record does not substantiate a finding that the Petitioner has any other clients or companies interested in her services or that she has income or employment with which to fund her research. As previously stated, it is further unclear whether the Petitioner intends to engage in a job search to find such support, whether she intends to work as an independent contractor, or whether she intends to work as an in-house geophysicist or researcher. For the foregoing reasons, we withdraw the Director's finding that the Petitioner meets the second Dhanasar prong and instead conclude that the evidence is insufficient to establish that she is well positioned to advance her endeavor.

The record does not establish the national importance of the Petitioner's proposed endeavor as required by the first prong of the Dhanasar precedent decision, nor does it establish that the Petitioner is well positioned to advance her endeavor. Accordingly, the Petitioner has not demonstrated eligibility for a national interest waiver. Therefore, further analysis of her eligibility under the third prong outlined in Dhanasar would serve no meaningful purpose.

As the identified reasons for dismissal are dispositive of the Petitioner's appeal, we decline to reach and hereby reserve the remaining arguments regarding the third Dhanasar prong. See INS v. Bagamasbad, 429 U.S. 24, 25 (1976) ("courts and agencies are not required to make findings on issues the decision of which is unnecessary to the results they reach"); see also Matter of L-A-C-, 26 I&N Dec. 516, 526 n.7 (BIA 2015) (declining to reach alternative issues on appeal where an applicant is otherwise ineligible).

#### III. CONCLUSION

The Petitioner has not established that she qualifies for the underlying classification as a member of the professions holding an advanced degree. In addition, the Petitioner has not met the requisite first and second prongs of the Dhanasar analytical framework. Accordingly, we conclude that she has not established she is eligible for or otherwise merits a national interest waiver as a matter of discretion. The appeal will be dismissed for the above stated reasons.

ORDER: The appeal is dismissed.