



**U.S. Citizenship  
and Immigration  
Services**

**Non-Precedent Decision of the  
Administrative Appeals Office**

MATTER OF S-M-

DATE: OCT. 29, 2015

APPEAL OF TEXAS SERVICE CENTER DECISION

PETITION: FORM I-140, IMMIGRANT PETITION FOR ALIEN WORKER

The Petitioner, a mathematician, seeks classification as a member of the professions holding an advanced degree, and asserts that an exemption from the requirement of a job offer, and thus of a labor certification, is in the national interest of the United States. *See* Section 203(b)(2) of the Immigration and Nationality Act (the Act), 8 U.S.C. § 1153(b)(2). The Director, Texas Service Center, denied the petition. The matter is now before us on appeal. The appeal will be sustained.

I. LAW

Section 203(b) of the Act states, in pertinent part:

(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) . . . the 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.

The Petitioner qualifies as a member of the professions holding an advanced degree. The sole issue in contention is whether the Petitioner has established that a waiver of the job offer requirement, and thus a labor certification, is in the national interest.

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Neither the statute nor the pertinent regulations define the term “national interest.” Additionally, Congress did not provide a specific definition of “in the national interest.” The Committee on the Judiciary merely noted in its report to the Senate that the committee had “focused on national interest by increasing the number and proportion of visas for immigrants who would benefit the United States economically and otherwise. . . .” S. Rep. No. 55, 101st Cong., 1st Sess., 11 (1989).

*In re New York State Dept of Transportation*, 22 I&N Dec. 215, 217-18 (Act. Assoc. Comm’r 1998) (*NYSDOT*), has set forth several factors which must be considered when evaluating a request for a national interest waiver. First, a petitioner must establish that the beneficiary seeks employment in an area of substantial intrinsic merit. *Id.* at 217. Next, a petitioner must establish that the proposed benefit will be national in scope. *Id.* Finally, the petitioner seeking the waiver must establish that the beneficiary will serve the national interest to a substantially greater degree than would an available U.S. worker having the same minimum qualifications. *Id.* at 217-18.

While the national interest waiver hinges on prospective national benefit, the petitioner must establish that the beneficiary’s past record justifies projections of future benefit to the national interest. *Id.* at 219. The petitioner’s assurance that the beneficiary will, in the future, serve the national interest cannot suffice to establish prospective national benefit. The term “prospective” is included here to require future contributions by the beneficiary, rather than to facilitate the entry of a beneficiary with no demonstrable prior achievements, and whose benefit to the national interest would thus be entirely speculative. *Id.*

## II. PERTINENT FACTS AND PROCEDURAL HISTORY

The Petitioner filed the Form I-140, Immigrant Petition for Alien Worker, on March 14, 2014, at which time he was working as a visiting assistant professor at [REDACTED]. The Petitioner stated that his current and prospective work involves both teaching and research, and that he has made significant and influential contributions to the fields of high dimensional statistics and machine learning.

Documentation supporting the Form I-140 included copies of 11 papers the Petitioner had authored or co-authored, citation data regarding his work, evidence of his activities as a peer reviewer for journals and conferences, and copies of invitations that he received to present his research at conferences and to participate in selective seminars and summer programs. In addition, the Petitioner submitted letters from supervisors, colleagues, and independent academic researchers in his field describing his work in detail and attesting to its significance.<sup>1</sup>

The record reflects that the Petitioner received his Ph.D. degree in Mathematics in 2012 from [REDACTED] where his research focused on machine learning. Machine learning deals with the design and analysis of algorithms that identify the most informative

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<sup>1</sup> While we discuss only a sampling of these letters, we have reviewed and considered each one.

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observations from a large set of data. Within the field of machine learning, active learning algorithms adaptively select the data from which they “learn.” The Petitioner’s thesis advisor at [REDACTED] stated that the Petitioner “introduced the first mathematically sound and computationally efficient active learning algorithms . . . thus opening the possibilities for practical use of active learning methods.” [REDACTED] assistant professor at [REDACTED] stated that the Petitioner’s “method is computationally tractable (that is, it can be implemented on a computer), while previously existing optimal algorithms were purely theoretical.” [REDACTED] characterized the results of the Petitioner’s research as “a major contribution to the field.” In addition, [REDACTED] of the [REDACTED] [REDACTED] stated that, while “most algorithms used in practice are problem specific and cannot be easily extended to other applications,” the Petitioner’s approach “can be applied to a large collection of models.” Several of the submitted letters noted the prestige of the [REDACTED] [REDACTED] in which the Petitioner published his research results.

[REDACTED] of [REDACTED] indicated that he is currently collaborating with the Petitioner to apply his active learning research to the area of personalized medicine. This project seeks to create new data analysis techniques to identify optimal treatment options based on an individual patient’s characteristics, allowing physicians to design individualized treatment rules for complex diseases.

Another contribution discussed in the letters relates to the Petitioner’s research at [REDACTED] on high-dimensional statistics, which deals with data sets that are too large to analyze with traditional methods. His supervisor, [REDACTED] indicated that the Petitioner came up with a new approach that “allows the robust analysis of massive scale data in a manner that takes into account uncertainty – this is crucial for extracting inferences from big biomedical, financial, and military datasets.” [REDACTED] stated that, in addition to controlling for irrelevant and erroneous measurements, the Petitioner’s “groundbreaking” method “speed[s] up the computations by splitting the data set into many groups, processing each of these groups separately, and combining the outcomes in a way that the final answer is as good as if the whole data set would be used simultaneously.” [REDACTED] indicated that he was recently contacted by the [REDACTED] [REDACTED] and invited to submit a grant proposal motivated by this work.

The Director issued requests for evidence (RFEs) issued on August 26, 2014, and December 10, 2014, requesting additional documentation to demonstrate “a record of specific prior achievement with some degree of influence on the field as a whole.” The Director stated that the Petitioner had not submitted supplemental evidence to give context to the citations of his work and show that they are demonstrative of his impact on the field. In response, the Petitioner submitted updated citation data for his work, copies of selected publications citing his research, articles describing publication patterns in the field of mathematics, and a table from [REDACTED] showing citation averages by field. The figures included in the table for the field of mathematics indicated high citation rates by age of article for many of the Petitioner’s papers. In addition, the Petitioner provided ranking information about universities worldwide, noting that his work has been cited by researchers at renowned institutions.

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The Petitioner's RFE response also included three additional letters from independent academics in his field, each of whom described the significance and influence of his work. For instance, [REDACTED] of the [REDACTED] attested to his own use of the Petitioner's [REDACTED] approach to high-dimensional statistics, stating that it is one of the few "truly outstanding" methods he has worked with during his career. He stated that "[w]ith the help of [the] new methodology invented by [the Petitioner], modern problems that would previously take many hours of computational time (such as the analysis of internet advertising data, climate data, market segmentation data, real-time transportation data, etc.) can now be solved within minutes." [REDACTED] professor at the [REDACTED] described his personal knowledge of "several other groups that are actively applying the methods of [the Petitioner] in their projects, and use the software developed by [the Petitioner] and his collaborators that implements his novel methods."

The Director denied the Form I-140 on February 10, 2015, finding that the Petitioner had not established sufficient impact and influence on his field to meet the third prong of the *NYSDOT* national interest analysis. On appeal, the Petitioner contends that his previously submitted evidence establishes his eligibility for the benefit sought. He provides copies of additional selected publications that cite his work along with his explanations of their significance.

### III. ANALYSIS

As stated above, the analysis set forth in *NYSDOT* requires a petitioner to demonstrate that he or she will serve the national interest to a substantially greater degree than would an available U.S. worker having the same minimum qualifications. To do this, a petitioner must establish "a past history of demonstrable achievement with some degree of influence on the field as a whole." *Id.* at 219, n. 6.

The submitted letters give context to the Petitioner's past research and explain its importance in ways that the record otherwise supports. These letters and the submitted publications that discuss the Petitioner's work provide persuasive evidence that the Petitioner's novel methods in the areas of active learning and high-dimensional statistics have been considered significant and influential in his field. We find this evidence sufficient to demonstrate that his research has had a degree of influence on the field as a whole. We therefore find that the record justifies projection that the Petitioner will serve the national interest to a significantly greater degree than would an available U.S. worker having the same minimum qualifications.

### III. CONCLUSION

As discussed above, the evidence in the record establishes that the benefit of retaining this Petitioner's services outweighs the national interest that is inherent in the labor certification process. Therefore, on the basis of the evidence submitted, the Petitioner has established that a waiver of the requirement of the job offer and labor certification will be in the national interest of the United States.

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In visa petition proceedings, it is the petitioner's burden to establish eligibility for the immigration benefit sought. Section 291 of the Act, 8 U.S.C. § 1361; *Matter of Otiende*, 26 I&N Dec. 127, 128 (BIA 2013). Here, the Petitioner has met that burden.

**ORDER:** The appeal is sustained.

Cite as *Matter of S-M-*, ID# 14153 (AAO Oct. 29, 2015)