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EMPLOYMENT

How Fund Managers May Increase the Likelihood That H-1B Sponsorship for Quants and Data Scientist Employees Will Be Approved

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Hedge funds need financial quantitative analysts (quants) and data scientists to compete in an ever-changing market. Those with the most desirable educational backgrounds to fill those roles are often foreign nationals who require sponsorship to work in the U.S. The work-authorized sponsorship category most widely used by fund managers for foreign nationals applying for quant and data scientist roles is the H-1B.

In the past, firms have been able to sponsor foreign nationals for H-1B status without significant trouble. Recently, however, 60 percent of H-1B cases are being questioned and subjected to lengthy requests by the U.S. Citizenship and Immigration Services (USCIS) – and one-third of all H-1B cases ultimately are denied. Questioning and denials are especially prevalent for positions that allow degrees in multiple fields, such as quants and data scientists, who typically hold degrees in a range of science, technology, engineering and math (STEM) fields in addition to more traditional fields, like computational finance.

Despite those grim denial rates, hedge funds should not give up on hiring foreign-born talent. This article provides recommendations and best practices that fund managers can use

to develop a strategy for H-1B sponsorship for quants and data scientists. As H-1B cap season quickly approaches, it is critical for fund managers to confirm how each sponsored position will qualify.

See [“EY 2019 Survey Explores Growing Importance of Talent Management, Diversity and Inclusion; Use of Technology, Big Data and AI; and Cybersecurity \(Part Two of Two\)”](#) (Dec. 19, 2019).

Specialty Occupation Requirement

Foreign nationals make up an increasing share of total students receiving STEM degrees in the U.S. According to a [Congressional Research Service report](#), in the 2016-2017 school year, foreign nationals made up 22 percent of U.S. bachelor’s degrees in STEM fields. Thus, many of the candidates for quant and data scientists positions at hedge funds will likely be foreign nationals.

For the past few years, the USCIS has tightened the reins on quant and data scientist roles and, in one case, has altogether removed the ability for fund managers to request one

type of work authorization that had previously been relied upon by many managers. In a [policy memorandum](#) issued on November 20, 2017 (USCIS Memorandum), the USCIS indicated that financial analysts do not qualify for nonimmigrant Trade NAFTA (TN) classification, which is available to Canadian and Mexican nationals when their offered U.S. roles are in a category listed under NAFTA. Many times, a financial analyst would be characterized as an economist under the regulations, provided the foreign national in that role possessed a relevant bachelor's degree. Pursuant to the USCIS Memorandum, however, the USCIS will no longer approve TN status for a foreign national who is not serving in a "traditional" economist role.

One category that remains open to foreign nationals applying for quant and data scientists positions is the H-1B. To qualify under that category, however, the position must be for a "specialty occupation." According to the regulations, a specialty occupation is one that requires both a theoretical and practical application of a body of highly specialized knowledge, as well as a bachelor's degree or higher in a specific specialty or its equivalent – i.e., a foreign degree that has been evaluated to be the equivalent of at least a bachelor's degree from an accredited university in the U.S.

Although the regulations have not been revised, the USCIS has changed the way it reviews and adjudicates H-1B petitions such that it now very narrowly interprets what roles qualify as specialty occupations. In fact, the USCIS is now reviewing extension petitions for positions that were previously approved under the H-1B regulations as if it were undertaking the very first review of those positions. Thus, the USCIS is not deferring to any prior decisions approving the H-1B status. This has

resulted in the USCIS issuing Requests for Evidence in 60 percent of H-1B petitions and denying 32 percent of cases in the first quarter of fiscal year 2019.

To determine whether a position qualifies as a specialty occupation, the USCIS considers the following four prongs. A fund manager must demonstrate that it meets at least one of them:

1. A degree is normally the minimum requirement for the sponsored position.
2. A degree is common to the industry, and the position is so complex or unique.
3. The firm normally requires the degree or its equivalent for the position.
4. The knowledge required to perform the specified duties of the role is associated with the degree.

Type of Degree

The USCIS continuously cites the decision [Royal Siam Corp. v. Chertoff](#) for the proposition that the term "degree" does not mean any baccalaureate or higher degree but one in a specific specialty that is directly related to the proposed position. The problem the USCIS has with quant and data scientist positions is the fact that most fund managers allow an individual to qualify for the role by possessing at least a bachelor's degree in one of many fields – although typically a STEM field. When fund managers allow for degrees in multiple diverse fields, a common link between courses – and the body of highly specialized knowledge gained in those courses – is the key to USCIS approval of an H-1B petition.

The first step to success is for a fund manager to have a detailed job description and a set of minimum requirements for a particular position. In practical terms, to satisfy the H-1B

requirements, a firm should demonstrate that the position requires at least a degree that is both:

- highly specialized, which means the degree program provided specific knowledge and training in a particular area of study; and
- highly related, which means the degree is directly related to the sponsored position.

Conversely, a degree with a generalized title, such as business administration, commerce or management, without further specification, is not sufficient to demonstrate that an individual has the necessary body of highly specialized knowledge to qualify for a financial role. The USCIS has consistently found that general and broad degrees are not specialized and, given their broad nature, not highly relevant to a financial role.

For traditional financial analyst roles, the USCIS is used to approving H-1B petitions in which individuals possess degrees in finance and economics – degrees that require intense study and specific related courses to complete the program. Those degrees are both highly related and highly specialized.

Quants, however, are not qualified in the same way as traditional financial analysts. As hedge fund managers are now applying quantitative strategies and techniques to financial data, they are searching for individuals with strong quantitative skills in, among other areas, data manipulation, statistical modeling, data mining, computer modeling, signal processing and machine learning. As a result, fund managers are not looking for degrees in finance but are instead focused on the STEM fields that incorporate those very specific skill sets.

Because fund managers are allowing more than one degree field for quant roles (e.g., financial engineering, computer science and physics), the USCIS has been questioning whether those positions qualify as specialty occupations. While STEM degree fields are highly specialized, many of those fields are not obviously related to a quant or data scientist role. As a result, strong evidence must be presented to overcome the USCIS' assumptions and prove that it is the courses – not the field of study per se – that are related to the role.

For more on talent acquisition, see [“An Introduction to Quantitative Investing: Special Risks and Considerations \(Part Three of Three\)”](#) (Sep. 6, 2018).

Evidence of Specialized Knowledge

The USCIS is required to review H-1B petitions under the preponderance of the evidence standard. If substantial evidence is provided to show that the fund manager requires at least a bachelor's degree and a body of highly specialized knowledge, that should, in theory, be sufficient to meet that standard. Unfortunately, there is no guarantee that a particular petition, even with substantial supporting documentation, will be approved by the USCIS, which has ultimate discretion and, as many have noted, is very inconsistent in its adjudication of similar cases.

As the burden is on the manager to provide persuasive evidence to demonstrate that a position that allows for a degree in multiple fields qualifies as a specialty occupation, the key to success is for a fund manager to show that the position requires at least a bachelor's degree, as well as a body of highly specialized

knowledge, thus, meeting the two requirements listed in the regulations.

To demonstrate the body of highly specialized knowledge required for the role, a fund manager must list the very specific areas of knowledge or the courses that are necessary to perform the duties. The fund manager must also be able to explain exactly how the degree and courses that make up the body of highly specialized knowledge are directly related to the duties to be performed as part of the role.

For instance, a fund manager can require its quants to possess a degree in a STEM field as long as the individual possesses course work covering linear algebra, statistics, machine learning and computer programming. The decision in *Residential Finance Corp. v. USCIS* held that it would be arbitrary and capricious to focus on the title of the degree or field of study rather than the substantive knowledge obtained through specialized courses within the titled field. It can be useful to remind the USCIS of this caselaw.

Consideration of Appropriate Applicants

Once the fund manager determines what degree fields and coursework are required for the role, the recruiters – who are at the front lines of the manager’s hiring and employment practices – must ensure that the manager considers only those applicants who meet the minimum requirements for the role. This standard should be applied to all applicants, whether foreign-born or U.S. citizens. The recruiter should examine an applicant’s transcripts and consider more than just the field of study for the degree. If an applicant does not possess the body of highly specialized knowledge, that applicant should not be hired for that particular role.

By way of example, if an applicant for a quant role possesses an engineering degree, that would certainly fall within the STEM field. The degree field alone, however, is not sufficient to determine whether the applicant qualifies for the role. The recruiter would need to review the applicant’s transcripts to ensure that the applicant took courses in linear algebra, statistics, machine learning and computer programming or that the applicant took courses that otherwise covered those areas.

If the fund manager is consistent in its hiring and employment practices, it can easily demonstrate it satisfies another prong of the USCIS’ test: that its employees in the same role possess the same minimum requirements of at least a bachelor’s degree in a STEM field, along with the required courses that make up the body of highly specialized knowledge. To avoid privacy or confidentiality issues, fund managers can present that evidence in the form of redacted employee transcripts and employment verification letters from HR or legal that verify the individual’s employment, as well as the veracity of the redacted documents.

When filing an H-1B petition, in some cases, it may be necessary, at the outset, to indicate and provide evidence that the fund manager consistently hires individuals with STEM degrees if they possess the body of highly specialized knowledge. In other cases, it may be best to strategically hold some evidence on hiring practices back and provide it only if questioned by the USCIS.

It is also helpful to provide the USCIS with some context and background about the industry, explaining the reason for the departure from requiring traditional finance degrees to STEM degrees. This should be a simple explanation describing how hedge funds are now applying

quantitative strategies and techniques to financial data, which requires quant roles to be filled by individuals with knowledge of subjects such as linear algebra, statistics, machine learning and computer programming.

For more on quants, see “[Quant Advisers Face Unique Compliance Issues](#)” (Oct. 10, 2019); and our three-part series on quantitative investing: “[Dispelling Myths and Misconceptions](#)” (Aug. 9, 2018); “[Regulatory Action, Guidance and Risk](#)” (Aug. 23, 2018); and “[Special Risks and Considerations](#)” (Sep. 6, 2018).

Complexity and Uniqueness of Role

Another prong the USCIS considers when determining whether a position qualifies as a specialty occupation is the complexity and uniqueness of the role. The USCIS finds primary evidence, such as an official job description, as the most persuasive evidence of this factor.

Unfortunately, many job descriptions fail to provide the level of detail about the position’s daily tasks that is required by the USCIS. As a result, filing an H-1B petition will require fleshing out each job description to include all of the tasks that must be completed to fulfil that overall duty. In addition to providing an official job description, fund managers should provide a detailed chart listing job duties and associated tasks, as well as breaking down the weekly amount of time (in terms of percentages) an individual performs each duty or task.

By breaking down the job duties into concrete tasks, a fund manager is able to better show the USCIS how the degree requirements and the body of highly specialized knowledge required by the fund manager are directly

related to the duties and responsibilities of the sponsored position. Of course, the USCIS will not read between the lines, so fund managers should clearly list the type of knowledge that is needed to perform the duties and link it to the requirements for the role – e.g., explaining that data mining teaches regression and correlation models, which are needed to develop quantitative financial models.

Although not always necessary to include in an initial petition, should the USCIS question whether the role qualifies as a specialty occupation, it is important to include:

- work product samples that provide primary, physical evidence of a role’s complexity. Explaining the work product sample will also allow the fund manager to explain how the body of specialized knowledge is implemented in the daily work of a quant;
- evidence of similar jobs within the industry that have the same requirements to demonstrate that the industry, as a whole, generally requires the same type of degree fields;
- industry articles that show the kind of body of highly specialized knowledge required to be a quant; and
- the Occupation Outlook Handbook’s disclaimer that it should not be used for legal purposes. In many of the Requests for Evidence, the USCIS relies heavily on the Occupation Outlook Handbook, which is available at <https://www.bls.gov/ooh/>, to justify its position that a role does not qualify as a specialty occupation. The Handbook, however, has a specific disclaimer indicating that it should not be used for any legal purposes.

For more on employment-related issues, see our three-part series on employee handbooks: [“Why Every Fund Manager Should Adopt an Employee Handbook”](#) (May 10, 2018); [“Ten Key Policies Fund Managers Should Include”](#) (May 17, 2018); and [“Ten Common Mistakes Fund Managers Must Avoid”](#) (May 31, 2018).

Bottom Line

The USCIS’ standard for H-1B sponsorship may, at times, be quite burdensome. If, however, fund managers are consistent in their employment practices and can provide strong evidence in support of an H-1B petition with detailed job duties and requirements, including the body of highly specialized knowledge, they can successfully sponsor foreign nationals for quant and data scientist positions.

For more on retaining top employees, see our two-part series: [“How Hedge Fund Managers Can Structure Deferred Compensation Plans to Retain Top Talent”](#) (Jun. 22, 2017); and [“Practical Considerations for Hedge Fund Managers Establishing Deferred Compensation Plans: Vesting Schedules, Deferral Amounts and Compliance With Section 409A”](#) (Jun. 29, 2017).

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