1 d

of the advanced-degree cap to the USCIS. However, this intuition is misguided: a wide range of outcomes can be obtained through a range of visa allocation rules subject to an identical reserved cap.

Of course, any allocation rule applied must be consistent with existing legislation. The statutory text in the U.S. Code (8 USC *x*1184(g)(5)(C))) states that the annual 65,000 unreserved cap

> \shall not apply to any alien [...] who [...] has earned a master's or higher degree from a United States institution of higher education [...], until the number of aliens who are exempted from such numerical limitation during such year exceeds 20,000."

Based on this code, we argue that any plausible visa allocation rule should satisfy three properties. First, it should be *non-wasteful*, a minimal e ciency requirement. That means a general-category applicant should not be denied a slot unless all unreserved slots are exhausted; similarly, a reserved category applicant should not be denied a slot unless all slots (reserved or unreserved) are exhausted.[7] Second, it should *accommodate the reserve policy* by restricting the access for reserved slots to reserved category applicants only. Finally, it should *respect priorities*, which means an applicant who is quali ed for a slot should not lose it to a candidate who has lower priority for this slot. When a visa allocation rule satis es all three properties, we say it *complies with the statute*.

Table 1 summarizes the four visa allocation rules that have been implemented in the H-1B program since 2005, all of which comply with the statute as de ned above. Our formal results characterize how these rules distribute access between general and advanced-degree applicants. In addition to analyzing these visa allocation rules, we also document previously unemphasized implications of the transitions between these rules.

The potential importance of these issues rst became apparent in President Trump's *Buy American and Hire American Executive Order* in 2017, which instructed the U.S. Department of Homeland Security to propose reforms to ensure that H-1B visas are awarded to the most-skilled or highest-paid petition bene ciaries. This declaration led to an adoption of a new visa allocation rule for FY2020 and was widely touted as increasing the number of advanced-degree applicants. For example, a government press release stated (USCIS, 2019):

> \Currently, [...] the advanced degree exemption is selected prior to the H-1B cap. The proposed rule would reverse the selection order and count all registration or petitions towards the number projected as needed to the reach the H-1B cap rst. Once a su cient number of registration or petitions have been selected for the

a simple rst-in rst-out procedure.

2 [illegible]

2.1 [illegible]

Prior to the H-1B Visa Reform Act of 2004, allocation of H-1B visas was carried out annually on a first-in first-out basis. This practice induced a natural priority order between applicants based on the time a petition arrives at the USCIS or a processing center. Perhaps due to this practice, the Congress introduced the additional 20,000 advanced-degree visas and the USCIS provided the following interpretation (USCIS, 2004):

> "The first 20,000 H-1B beneficiaries who have earned a master's degree or higher from a U.S. institution of higher education are not subject to the annual congressionally mandated H-1B visa cap of 65,000.
>
> After those 20,000 slots are filled, USCIS is required to count those cases against the cap for the remainder of the fiscal year."

If this mandate is interpreted in relation to the existing first-in first-out procedure, it suggests the following visa allocation rule that we refer to as [illegible]:

> Process each application one-at-a-time following its arrival time.[8]
>
> 1. For each qualified application from a member of the general category, accept the application counting it against the unreserved cap of 65,000 until all unreserved slots are exhausted. Reject the application if all unreserved slots are exhausted.
> 2. For each qualified application from a member of the reserved category,
>   (a) exempt the application from the unreserved cap of 65,000 counting it against the reserved cap of 20,000 until all reserved slots are exhausted,
>   (b) count the application against the unreserved cap of 65,000 if all reserved slots are exhausted although there are remaining unreserved slots, and
>   (c) reject the application if all slots (reserved or unreserved) are exhausted.

Exemptions-First visa allocation rule was adopted by USCIS for FY2006 and the next two years.

For FY2005, however, the USCIS used the following rule, which we refer to as [illegible]:

Process each application one-at-a-time following their arrival time.

1. For each quali ed application, award the applicant a slot counting it against the unreserved cap of 65,000 until all unreserved slots are exhausted.
2. Once all unreserved slots are exhausted,

   (a)

24,630 under the Exemptions-First rule.[9] The difference, 16.7% of all annual 85,000 slots, is large given that both rules implement the same legislation. Therefore, the implementation of H-1B Visa Reform Act of 2004 significantly influences the distribution of H-1B visas between reserved-category and general-category applicants.

In our formal model, we show that, of all the rules that comply with the statute, the two rules implemented in FY2005 and FY2006-08 play special roles. Of all rules that comply with the statute, the Over-and-Above visa allocation rule is the most favorable rule for the reserved-category applicants and the least favorable rule for the general-category applicants. In striking contrast, the Exemptions-First visa allocation rule is the least favorable rule for the reserved-category applicants and the most favorable rule for the general-category applicants. This fact partially motivates our belief that the importance of these details of implementation was not appreciated at this time.

2.2 2008 Reform

In each of the three years H-1B allocation was implemented using the Exemptions-First rule, applications arrived earlier than the previous year.[10] In FY2008, the number of general-category applications sufficient to meet the 65,000 unreserved cap arrived the first day applications were accepted by the USCIS. Indeed, anticipating this may happen, employers spent significant effort and money to send petitions by expedited overnight delivery for receipt on the first day petitions would be allowed, resulting in more than 150,000 petitions being delivered on the same day and burdening employers, delivery services, and USCIS offices.[11] This development made clear that the use of arrival time as a priority measure was breaking down.

Consequently, in March 2008 USCIS changed its procedure in three important ways:

1. It abandoned the practice of processing the applications on a first-in first-out basis, instead allowing five days from April 1 for all petitions for the upcoming fiscal year to be submitted.[12]

2. To replace the naturally induced first-in first-out based priority order for all slots, USCIS adopted two independent random priority orders $_r$ and $_u$; the former for the reserved slots and the latter for the unreserved slots.

[9] Section 5.2 details these calculations.

[10] The Federal Register reports that in FY2006 the general cap was reached on August 10, 2005 and the advanced-degree cap was reached on January 17, 2006; in FY2007 the general cap was reached on May 26, 2006 and the advanced-degree cap was reached on July 26, 2006; and in FY2008 the general cap was reached on April 1, 2007 and the advanced-degree cap was reached on May 4, 2007. (Register, 2008).

[11] This information comes from the United States District Court Case *Walker Macy (2017) vs. U.S. Citizenship and Immigration Services*.

[12] If sufficient applications from either category was not received within five days, the reform allowed for additional petitions that arrived later.

3. Under the new procedure, H-1B allocation is determined in two steps: rst allocate the 20,000 reserved slots to highest $_r$-priority reserved-category applicants, and next allocate the 65,000 unreserved slots to highest $_u$-priority applicants considering all applicants except those who already received the reserved slots.

We refer to the resulting visa allocation rule as **Re** . USCIS allocated H-1B visas using the Reserved-Initiated visa allocation over the next decade during FY2009-19. As we have already emphasized, logistical considerations made it necessary to abandon a system based on rst-in rst-out evaluation of the applications.

The choice of using two independent and random lotteries to determine the priority order for reserved and unreserved slots has one unexplored implication. For two di erent scenarios, consider all rules that comply with the statute.

> In Scenario 1, a single priority order $_u$ is used for both unreserved and reserved slots. Scenario 1 corresponds to FY2005-08, where the priority for both types of slots was carried out on a rst-in rst-out basis.
>
> In Scenario 2, maintain the priority order $_u$ for unreserved slots, but adopt a di erent priority order $_r$ for the reserved slots.

We have already stated that the di erence between the \reserved-category optimal" and \reserved-category pessimal" extremes of all visa allocation rules that comply with the statute is signi cant when there is a single priority order for both types of slots, i.e under Scenario 1. In Theorem 3 below, we show that there exists analogous \reserved-category optimal" and \reserved-category pessimal" outcomes under Scenario 2 as well. Moreover, under both scenarios, the \reserved-category optimal" outcome assigns exactly the same number of reserved-category applicants. However, as we show in Theorem 2, the

in Scenario 2 is 38,834 under the reserved-category optimal outcome (as in the Over-and-Above rule), and it is 33,495 under the reserved-category pessimal outcome given by the Reserved-Initiated rule. The corresponding reserved-category pessimal outcome was a much lower 24,630 under the Exemptions-First rule. Therefore, while possibly

(2017) Kamada and Kojima (2018), Aygün and Turhan (2016), Aygün and Bo (2016), Bo (2016), Dogan (2016), Kominers and Sonmez (2016), and Fragiadakis and Troyan (2017).

By introducing the visa allocation as a market design problem, our paper is also related to several other papers that study the formal properties of specific allocation processes in the field and propose alternatives. This literature includes studies of entry-level labor markets (Roth, 1984; Roth and Peranson, 1999), school choice (Balinski and

$(i) = u$ indicates applicant i is awarded an unreserved slot, and

$(i) = ;$ indicates applicant i is not awarded a slot.

Since all slots are identical, each applicant is indi erent between all slots. We further assume that, each applicant strictly prefers receiving a slot to not receiving one.

For any matching , let

$j \ j = j i \in I : (i) \neq ; j$ denote the number of applicants who are allocated a slot,

$j \ _r j = j i \in I : (i) = r j$ denote the number of applicants who are allocated a reserved slot,

$j \ _u j = j i \in I : (i) = u j$ denote the number of applicants who are allocated an unreserved slot,

$(I_R) = f i \in I_R : (i) \neq ; g$ denote the set of reserved-category applicants who are each allocated a slot, and

$(I_G) = f i \in I_G : (i) \neq ; g$ denote the set of general-category applicants who are each allocated a slot.

3.1 [illegible]

A *priority order* is a linear order on the set of applicants I, where for any $i; j \in I$

$$i \quad j$$

indicates applicant i has \higher claims" to a slot than applicant j.

Motivated by U.S. H-1B visa allocation policies since 2004, we focus on allocation rules that rely on two *priority orders* $_u$ and $_r$, where the former identi es the claims for the unreserved slots and the latter identi es the claims for the reserved slots. These priority orders can depend on factors such as the timing of arrival of applications, exam scores, or simply a random lottery draw. While the two priority orders can be identical, they can also be di erent.

A *visa allocation rule* is a function that assigns a matching for each set of applicants. Throughout the paper, we x the set of applicants, and simply refer to properties of matchings rather than properties of visa allocation rules. We study matchings that satisfy the following three properties.

[illegible] *A matching is* non-wasteful *if,*

1) for any $i \in I_R$*,*

$$(i) = ; \Rightarrow j \ j = q; \text{ and}$$

2) for any $i \in I_G$,

$$(i) = \emptyset \implies |\mu| = q_u.$$

That is, each slot is to be allocated, provided that there are eligible applicants.

Definition 2 *A matching* accommodates reservation policy *if, for any* $i \in I_G$,

$$(i) \in R \implies r.$$

That is, only quali ed applicants can be awarded slots reserved for advanced-degree applicants.

Definition 3 *A matching* respects priorities *if,*

1) for any $i, j \in I$,

$$(i) = \emptyset \text{ and } (j) = u \implies j \succeq_u i, \text{ and}$$

2) for any $i, j \in I_R$,

$$(i) = \emptyset \text{ and } (j) = r \implies j \succeq_r i.$$

That is, allocation of both type of slots is to respect their given priority orders.

It is convenient to collect all three properties into the following de nition.

Definition 4 *A matching* complies with the statute *if and only if (i) it is non-wasteful, (ii) it accommodates reservation policy, and (iii) it respects priorities.*

3.2 [illegible]

As we have1.n,

- { allocate her a reserved slot provided that not all reserved slots are exhausted,
- { an unreserved slot provided that there still remains at least one unreserved slot although all reserved slots are exhausted.

If the applicant is a member of the general category, allocate her an unreserved slot, provided that not all unreserved slots are exhausted.

An applicant who fails to receive a slot at the end of this process is not awarded a slot.

[illegible] Φ_{ao}:

[illegible]: Consider all applicants one-at-a-time based on the priority order . Allocate an unreserved slot to the applicant in consideration, provided that not all unreserved slots are exhausted. Proceed to Step 2, either when all applicants are already considered or all unreserved slots are exhausted.

[illegible]: Consider all remaining reserved-category applicants one-at-a-time based on the priority order . Allocate a reserved slot to the applicant in consideration, provided that not all reserved slots are exhausted. Terminate the procedure, either when all reserved-category applicants are already considered or all reserved slots are exhausted.

An applicant who fails to receive a slot in either step is not awarded a slot.

For the next two visa allocation rules, x two priority orders $_u$ and $_r$.

[illegible] Φ_{ru}:

[illegible]: Consider all reserved-category applicants one-at-a-time based on the priority order $_r$. Allocate a reserved slot to the reserved-category applicant in consideration, provided that not all reserved slots are exhausted. Proceed to Step 2, either when all reserved-category applicants are already considered or all reserved slots are exhausted.

[illegible]: Consider all remaining applicants one-at-a-time based on the priority order $_u$. Allocate an unreserved slot to the applicant in consideration, provided that not all unreserved slots are exhausted. Terminate the procedure, either when all applicants are already considered or all unreserved slots are exhausted.

An applicant who fails to receive a slot in either step is not awarded a slot.

[illegible] Φ_{ur}:

[illegible]: Consider all applicants one-at-a-time based on the priority order $_u$. Allocate an unreserved slot to the applicant in consideration, provided that not all unreserved slots are exhausted. Proceed to Step 2, either when all applicants are already considered or all unreserved slots are exhausted.

4.2 2008 H-1B Season

In 2008, USCIS discovered that the use of a single priority order that relies on arrival date of H-1B petitions had resulted in employers spending signi cant e ort and money to

4.3 2019 H-1B Reform

In contrast to previous reforms in H-1B visa allocation rules where the changes were officially justified based on logistical considerations, the reform of 2019 was motivated by an officially stated objective of increasing the fraction of reserved-category applicants who receive H-1B visas. In 2019, USCIS adopted the Unreserved-Initiated visa allocation rule ϕ^{ur} starting FY2020 abandoning the rule ϕ^{ru} that was used for over a decade.

In our next result, we show that this reform increases the selection of the reserved-category applicants at the expense of the general-category applicants, and it is has the highest selection rate of reserved-category applicants among all rules that comply with the statute.

Theorem 3 *Given two priority orders $\succ_u$ = and $\succ_r$ = , let $\mu^{ru} = \phi^{ru}(I)$ be the outcome of the reserved-initiated visa allocation rule, and $\mu^{ur} = \phi^{ru}(I)$ be the outcome of the unreserved-initiated visa allocation rule. Let be any matching that complies with the statute. Then*

1. $|\mu^{ru}(I_R)| \geq |(I_R)| \geq |\mu^{ur}(I_R)|$ *and*
2. $\mu^{ur}(I_G) \succeq (I_G) \succeq \mu^{ru}(I_G)$.

5 Post-2004 H-1B Reforms

5.1 Unreserved Slots

Consider all four post-2004 visa allocation rules ϕ^{ef}, ϕ^{oa}, ϕ^{ru}, and ϕ^{ur}. Fix

the priority order for unreserved slots of each of the four rules at $\succ_u$ = ,

the priority order for reserved slots of each of the two single-priority rules ϕ^{ef} and ϕ^{oa} at $\succ_r$ = , and

the priority order for reserved slots of each of the two dual-priority rules ϕ^{ru} and ϕ^{ur} at $\succ_r$ = .

Observe that, Step 1 of the two rules ϕ^{oa} and ϕ^{ur} are identical. Therefore, unreserved slots are allocated to the same set of applicants under both rules. Not only are both rules match an identical set of general-category applicants, but they also match an identical number of reserved-category applicants. The set of reserved-category applicants matched in Step 2 potentially differ under these rules since they rely on different priority orders to fill the reserved slots.

Observation 2 *Let* $^{oa} = \ ^{oa}(I)$ *be the outcome of the Over-and-Above visa allocation rule that is induced by the priority order*

$$_u = \ _r = \ ;$$

and, $^{ur} = \ ^{ur}(I)$ *be the outcome of the Unreserved-Initiated visa allocation rule that is induced by the two priority orders*

$$_u = \ \textit{and} \ _r = \ :$$

Then,

1. $j \ ^{oa}(I_R)j = j \ ^{ur}(I_R)j$ *and*
2. $^{ur}(I_G) = \ ^{oa}(I_G)$.

The following result immediately follows from Theorems 1-3 and Observation 2.

Observation 3 *Given a priority order* , *let* $^{oa} = \ ^{oa}(I)$ *be the outcome of the Over-and-Above visa allocation rule and* $^{ef} = \ ^{ef}(I)$ *be the outcome of the Exemptions-First visa allocation rule. Given a pair of priority orders* (;), *let* $^{ru} = \ ^{ru}(I)$ *be the outcome of the Reserved-Initiated visa allocation rule and* $^{ur} = \ ^{ur}(I)$ *be the outcome of the Unreserved-Initiated visa allocation rule. Then,*

1. $j \ ^{ef}(I_R)j \quad j \ ^{ru}(I_R)j \quad j \ ^{ur}(I_R)j = j \ ^{oa}(I_R)j$ *and*
2. $^{oa}(I_G) = \ ^{ur}(I_G) \quad ^{ru}(I_G) \quad ^{ef}(I_G)$.

5.2

So far, our formal results have not placed any structure on the distribution of the two priority orders $_u$ and $_r$. To quantify the e ects of these four di erent policies in practice, we must place additional structure on the priority orders. Suppose both priority orders are independent uniform draws, as is the practice in the U.S. since 2008, from the set of all priority orders. For the Over-and-Above and Exemptions-First rules, the derivations utilize priority order $_u$ only. For the Reserved-Initiated and Unreserved-Initiated rules, the derivations utilize both priority orders.

For Over-and-Above rule, in Step 1 the q_u unreserved slots are allocated to members of both groups in proportion to the sizes of both groups. Subsequently in Step 2, all q_r reserved slots are awarded to reserved-category applicants, unless of course fewer than q_r reserved-category applicants remain who are unmatched. In that case, each remaining reserved-category applicant is awarded a reserved slot. Therefore, the expected numbers

of reserved-category and general-category applicants matched under the Over-and-Above visa allocation rule are:

$$j\ ^{oa}(I_R)j = \frac{j|_R j}{j|\ j}q_u + \min\quad q_r; j|_R j \qquad \frac{j|_R j}{j|\ j}q_u \quad ;$$

$$j\ ^{oa}(I_G)j = \frac{j|_G j}{j|\ j}q_u:$$

The following observation is helpful to derive the expected number of reserved-category and general-category applicants matched under the Exemptions-First visa allocation rule. Under this rule, the reserved cap provides a bene t to reserved-category applicants only if their proportional share is less than the reserved cap. Otherwise all slots (reserved or unreserved) are allocated in proportion to the sizes of both groups. If, on the other hand, the proportional share of the reserved-category applicants is less than the reserved cap, then all q_r reserved slots (which is more than their proportional share of all slots) are awarded to reserved-category applicants, whereas all q_u unreserved slots (which is less than their proportional share of all slots) are awarded to general-category applicants. Therefore, the expected numbers of reserved-category and general-category applicants matched under the Exemptions-First allocation rule are:

$$j\ ^{ef}(I_R)j = \max\quad q_r; \frac{j|_R j}{j|\ j}(q_u + q_r) \quad ;$$

$$j\ ^{ef}(I_G)j = \min\quad q_u; \frac{j|_G j}{j|\ j}(q_u + q_r) \quad :$$

B2: H 5,000
20,000

	# of Applicants		Advanced-Degree Allocation			
	General	Advanced Degree	oa	ef	ru	ur
5-yr Average (2013-17)	137,017	55,900	38,834	24,630	33,495	38,834
2017	111,080	87,380	48,619	37,425	44,542	48,619

Notes: Calculations based on data from 2019 Federal Register, assuming same arrival time distribution

6 Ec

In response to President Trump's 2017 *Buy American and Hire American Executive Order*, the USCIS reformed the H-1B visa allocation rule in 2019. The stated objective of

H1-B program provides quali ed support for this idea. Ultimately, the USCIS discovered the rule that best implements the administration's stated goal of advantaging advanced-degree applicants. We believe this provides only quali ed support, however, because this evolution took place after fteen years involving several steps of trial-and-error. Furthermore, evolution may have been hasten by somewhat fortuitous logistical issues that forced experimentation with new mechanisms.

The second broader debate our work contributes to is about the importance of details in market design. Some authors, most notably Klemperer (2002), have argued that most of auction theory is of second-order importance for practical auction design. The auction models he describes are often stylized representations of the actual market clearing rules.

A

A 1

P Let be any matching that complies with the statute. That is, is any non-wasteful matching that accommodates reservation policy and respects priorities.

Claim : $j \quad (I_R)j$

A2 [illegible]

[illegible] Let J_R be the set of q_r highest -priority reserved-category applicants, and J_R be the set of q_r highest -priority reserved-category applicants. We have

$$^{ru}_{r}(I) = J_R \quad \text{and} \quad ^{ef}_{r}(I) = J_R:$$

Let S be the set of q_u highest -priority applicants in $I \setminus J_R$ and S be the set of q_u highest -priority applicants in $I \setminus J_R$. De ne

$$S_R = S \setminus I_R; \qquad S_G = S \setminus I_G; \text{ and}$$
$$S_R = S \setminus I_R; \qquad S_G = S \setminus I_G:$$

Observe that

$$^{ru}(I_R) = J_R \cup S_R; \qquad ^{ru}(I_G) = S_G;$$
$$^{ef}(I_R) = J_R \cup S_R; \qquad ^{ef}(I_G) = S_G:$$

Let $g \in S_G$. That is, applicant g is one of the general-category recipients of an unreserved slot under matching ^{ru}. By construction of the set S_G,

$$|\{i \in I \setminus J_R : i \succ g\}| < q_u;$$

for otherwise applicant g would not be assigned one of the unreserved slots in ^{ru}.

Since $|J_R \setminus J_R| = |J_R \setminus J_R|$ and

$$j \succ j \quad \text{for all } j \in J_R \setminus J_R \text{ and } j \in J_R \setminus J_R;$$

we must have

$$|\{i \in I \setminus J_R : i \succ g\}| < q_u;$$

which in turn implies $g \in S_G$. Therefore, $S_G \subseteq S_G$, and hence

$$^{ru}(I_G) \quad ^{ef}(I_G); \tag{13}$$

showing the second desired relation.

Recall that we have $|J_R| = |J_R| = q_r$. Therefore the relation (13), together with the non-wastefulness of matchings ^{ru} and $^{M \ G}$ imply

$$| \ ^{ef}(I_R)| \quad | \ ^{ru}(I_R)|; \tag{14}$$

showing the rst desired relation and completing the proof. ■

A3 [illegible]

[illegible] Let be any matching that complies with the statute. That is, is any non-wasteful matching that accommodates reservation policy and respects priorities. Let J_G denote the set of general-category applicants and J_R denote the set of reserved-category applicants among q_u highest -priority applicants. By de nition,

$$jJ_Gj + jJ_Rj = q_u: \tag{15}$$

We rst relate the set of applicants $^{ur}(I_G)$ and (I_G). Since is non-wasteful and it respects priorities,

$$j\ (I_G)j \quad jJ_Gj: \tag{16}$$

Since general-category applicants receive jJ_Gj unreserved and 0 reserved slots under ^{ur},

$$j\ ^{ur}(I_G)j = jJ_Gj: \tag{17}$$

Equation (16) and equation (17) imply $j\ ^{ur}(I_G)j \quad j\ (I_G)j$, which in turn implies

$$^{ur}(I_G) \quad (I_G); \tag{18}$$

since both matching and matching ^{ur} respect priorities.

We next relate the set of applicants (I_R) and $^{ur}(I_R)$. Equation (16) and equation (15) imply

$$j\ (I_R)j \quad q \quad jJ_Gj = q \quad (q_u \quad jJ_Rj) = q_r + jJ_Rj: \tag{19}$$

Since reserved-category applicants receive jJ_Rj unreserved slots and q_r reserved slots under matching ^{ur},

$$j\ ^{ur}(I_R)j = q\ ^{ur}(\text{Ij} \quad ^{G}$$

Let S

B jA tEHR

This appendix contains excerpts from the Federal Register, the o cial journal of the federal government of the United States, related to H-1B allocation.

B1 2005 HBV70, N86, y5

\The H-1B Visa Reform Act of 2004 was enacted after the start of FY 2005 and after the receipt of all petitions necessary to reach the existing 65,000 H-1B cap for FY 2005. The

scal year, may le the H-1B petition as early as April 1 of the current scal year. When the USCI0n-361(USCI0n-3612(cion)-30281rmines(0(basedCI0n-3ly)-3621(USCI0n-3l)-30um)-30bs)-303rf

provides that, if both the 65,000 and 20,000 caps are reached within the first five business days available for filing H-1B petitions for a given fiscal year, USCIS must first conduct the random selection process for petitions subject to the 20,000 cap on master's degree exemptions before it may begin the random selection process of petitions to be counted towards the 65,000 cap. After conducting the random selection for petitions subject to the 20,000 cap, USCIS then must add any non-selected petitions to the pool of petitions subject to the 65,000 cap and conduct the random selection process for this combined group of petitions. Therefore, those petitions that otherwise would be eligible for the master's degree exemption that are not selected in the first random selection will have another opportsloty to be selected for an H-1B number in the second random selection process. This rule also clarifies that those petitions not selected in either random selection

bene ciaries with a master's or higher degree from a U.S. institution of higher education (29 percent) will therefore be included in the pool for selection. DHS estimates that up to 18,825 advanced degree registrations that could be selected during the selection for the regular cap." (Page 928)

\Next, USCIS will select a certain number of registrations projected to meet the 20,000 advanced degree exemption from the remaining pool of 37,065 advanced degree registrations. In total, USCIS is likely to select an estimated 38,835 registrations for petitioners seeking to le H-1B petitions under the advanced degree exemption. These registrations account for 20 percent of the 192,918 registrations. Therefore, DHS estimates USCIS could accept up to 5,340 (or 16 percent) more H-1B cap-subject petitions annually for bene ciaries with a master's or higher degree from a U.S. institution of higher education." (Page 929)

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