



**STOP! DO NOT PASS GO!
INSTITUTIONAL PRACTICES IMPEDING
UNDERGRADUATE STUDENT ADVANCEMENT:
Part 1 An Exploratory Study**

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Introduction

In the context of this paper, and higher education institutional practice, a “hold” is defined as a means an institution may employ to prevent a student from completing an action, such as registering for a class or accessing an official transcript. Holds are most often used as an attempt to motivate a student to take an action sought by the institution. For example, the institution may be trying to get a student to pay a debt, see an advisor, check in with a student success coach or turn in a missing document for financial aid. A hold is the motivation for the student to take the specific action required.

Two types of holds employed by institutions to spur a student to action are registration holds and transcript holds. A registration hold can cause a student stress as she seeks to resolve an issue while trying to complete the term or enroll as a first-time student.¹ A transcript hold may prevent a student from transitioning to other opportunities until the reason for the hold is resolved. For instance, a transcript is required to transfer to another institution, to apply for graduate school, for a professional licensure application, and as proof of education for employment.

A greater understanding of how and why holds are used, and the impact these holds have on students, is needed to help institutions become aware of the scope and consequences of the practice. Additionally, issues of equity (if they exist) and how effective placing holds is at motivating a student to take action need to be understood.

Further understanding of the effectiveness of holds will come from an examination of student-level demographic and hold data. This approach differs from the institutional-level quantitative research previously completed by Ithaka S+R and others. Student-level data can be examined for practice-impact differences based on student demographics or socioeconomic factors in addition to differences based on institutional characteristics. This research will benchmark the uses of registration and transcript holds and the institutional remedies already in place to assist students in resolving holds. It will also help identify remedies an institution may adopt to assist students in resolving holds.

The term “stranded credits” was defined by Ithaka S+R in related research² to describe the practice of withholding access to an official transcript for an outstanding debt. Research on stranded credits and other practices that impede student advancement remains relevant because the use is widespread. In addition, the COVID-19 pandemic may have exacerbated the problem of stranded credits by leaving more students than average with unresolved debt due to job loss and other situations. Further, there is ongoing awareness among institutional personnel that unresolved debt remains an issue for retention and student mobility. This is evidenced by the fact that 64% (n=9) of the institutions in this sample use HEERF funds to forgive some, or all, student debt associated with registration or transcript holds. Sixty-seven percent of a national sample³ indicated the same.

¹ First-time students may have a hold placed as soon as they are admitted and before they have registered for a course. This

² Hold is often for action items such as required advising, orientation or a missing document.
<https://sr.ithaka.org/publications/solving-stranded-credits/>

³ www.aacrao.org/ImpedingStudentAdvancement

Nate McCoy, director of institutional records and research at Lincoln College, one of the institutional participants in the study detailed below, astutely noted, “*My takeaway from the study is that our practices regarding holds, why they are imposed, on whom, how the target student is notified, and the content of that notification in terms of resolution actions are often less than transparent to those most at risk of experiencing the hold as a **stop** sign rather than a **yield**.*” The findings from this research, and the resultant recommendations, will help institutions focus on the message of *yield* rather than *stop*.

Background

Lumina Foundation engaged Ithaka S+R to use institutional-level debt data and IPEDS data⁴ to estimate the impact of transcript withholding on students, states, and institutions. Ithaka S+R then co-sponsored the American Association of Collegiate Registrars and Admissions Officers (AACRAO) to survey institutional practices in the United States that result in stranded credits. Any institutional programs to help students resolve debt and regain access to their transcript were also to be identified. The results provided practice and policy context for the data examined by Ithaka S+R. The Ithaka S+R authors concluded, based on their analysis and other reports⁵, the practice of withholding transcripts is widespread and suggested “adult learners, lower-income students, and racial and ethnic minorities are the most likely to owe outstanding balances to previously attended institutions, and therefore most likely to have stranded credits.” They estimated the number of current and former U.S. college students impacted could be more than 6 million.

Ithaka S+R also completed the report, *Stranded Credits: A Matter of Equity*,⁶ based on qualitative research completed in August 2021, as a follow up to the quantitative research. From student and staff interviews, the authors concluded stranded credits due to an outstanding debt can delay, alter, or prevent students from achieving their educational goals.

Further, a representative from College Now Greater Cleveland, quoted in a Hechinger Report article⁷ on this topic from March 2021, stated, “Unlocking these [transcript] holds can be time-consuming and confusing, especially for students without experience in financial matters or who don’t know whom to call.” Institutional representatives interviewed for this report further note a transcript may be held for any debt amount greater than zero, and a debt may prevent the student from registering for a future term.

Lumina Foundation and AACRAO found a mutual interest in gaining an understanding of institutional practices that prevent a student from progressing in his or her postsecondary education and achieving future goals by preventing registration and/or withholding access to an official transcript.

⁴Ithaka S&R used “publicly available IPEDS data and information from the 2019 NACUBO Student Financial Services Benchmarking Study to estimate the number of students nationally with stranded credits and the total dollar amount outstanding to colleges.”

<https://www.policymattersohio.org/files/research/collectagainstfuture1.pdf>

⁶<https://sr.ithaka.org/publications/stranded-credits-a-matter-of-equity/>

⁷<https://hechingerreport.org/colleges-are-withholding-transcripts-and-degrees-from-millions-over-unpaid-bills/>

Methodology

Institutions that completed the 2020 AACRAO stranded credits survey were solicited via email to participate in this study. The target sample population was identified using typical case sampling to recruit 15 institutions of varying institutional characteristics. Diversity was sought among the institutions for the percentage of students receiving Pell grants, the percentage of white students, minority-serving institution (MSI) status, geographic location, size of the undergraduate population, institutional control, and institutional type. Fifteen volunteer institutions were selected. However, by the end of the data collection phase, one institution withdrew from the project because the requested data were not readily available at the institution (Appendix A). The 14 remaining institutions were provided a stipend of \$5,000 to provide a list of all registration and transcript holds applied to undergraduate students enrolled during the 2017-2018 or 2018-2019⁸ academic years.

This novel research differs from prior research conducted on the topic. The institutions supplied disaggregated student-level hold data for each hold instead of aggregated institutional-level data. Variables collected included many factors, such as:

- the type of hold
- the impact of the hold (preventing registration, access to a transcript, or both)
- who at the institution placed the hold
- the purpose of the hold
- the resolution status of the hold
- student demographics
- student completion status
- student stop-out or transfer status
- identification of a debt-related hold⁹
- the amount of associated debt if applicable (See Appendix B).

Any student in the data may have more than one hold within each year or over the 2 years examined.

⁸2019-2020 was intentionally excluded from the study to control for the unexpected influence of the COVID-19 pandemic on the number of students with holds.

⁹A hold associated with debt may prevent registration, access to a transcript or both. Debt holds are a subcategory of the other three.

Research Questions

1. What institutional efforts to collect on debt result in a student's inability to re-enroll for a subsequent term or have access to their official transcripts?
2. What other institutional efforts result in a student's ability to re-enroll for a subsequent term or have access to their official transcripts?
3. For academic years 2017-2018 and 2018-2019, how many holds were initiated within these years that resulted in a transcript hold or registration hold?
 - a. For debt remediation
 - b. For other reasons
 - c. Resulting in withholding an official transcript
 - d. Resulting in not being able to register for the next term
4. What is the average dollar amount of the debt?
 - a. What are the student characteristics of those who are impacted by these practices?
 - b. For debt remediation
 - c. For other reasons
 - d. Resulting in withholding an official transcript
5. Resulting in not being able to register for the next term
6. What institutional characteristics, if any, have a relationship with the average debt dollar value or percentage of students with holds that year?
 - a. For registration holds
 - b. For transcript holds

Data related to student transfer, stop-out, enrollment status (full-time or part-time), and completion was not uniformly available, or accurate, from all institutions. As such, these variables were excluded from the analyses. In addition, known debt values were only available from 11 of the 14 institutions. Data were further cleaned to ensure all holds marked as *nondebt* had a zero-dollar value, and all debt holds had a value greater than zero dollars in the amount field.

After cleaning the data set, descriptively examining the data, and completing several statistical analyses (Appendix E), further analyses were focused only on the unresolved holds. This decision was made because most holds are resolved and, as such, no longer impede the student (the focus of this study). Data indicate placing a hold to motivate a student to take an action works most of the time.

In addition to the student-level hold data collected, the 14 institutional participants were surveyed about institutional practices related to hold use and sought reflections on the use of holds. Data are summarized in the results section and, when meaningful, compared to the national sample derived from the soon-to-be-released complementary AACRAO report titled *Stop! Do not pass Go! Institutional Practice Impeding Undergraduate Student Advancement: A national sample of policy and practice*.¹⁰

¹⁰ www.aacrao.org/ImpedingStudentAdvancement

Results¹¹

Key Findings

In this sample of hold data from 14 institutions for the academic years 2017-18 and 2018-19, we found the following:

- The registrar's office is not the primary administrative user of holds; other administrative units and the bursar are primary users
- All institutions in this sample use all three types of holds
 - All prevent registration and access to an official transcript for an unpaid balance hold placed specifically by the bursar
 - Two (14%) will hold a transcript for any dollar amount owed greater than \$0.00, as compared to 49% in the national sample
 - Two (14%) will prevent registration for any dollar amount owed greater than \$0.00, as compared to 29% in the national sample
 - Most holds are subsequently resolved. In this sample, 92% of debt-related holds and 85% of non-debt holds are resolved
- 65.3% of the holds placed on students in this sample prevented registration only; 9.4% prevented access to official transcripts only; and 25.3% prevented both
- 357 unique hold¹² codes were present in the data:
 - 204 codes prevent a student from registering
 - 40 codes prevent a student from accessing an official transcript
 - 113 codes prevent both
- 2.7%¹³ of all *students* with holds in the 2017-2018 data had an unresolved debt preventing access to a transcript; in 2018-2019, that percentage was 4.3%¹⁴
- 42% of the debt-related *holds* preventing access to a transcript over both years were associated with unpaid debt of less than \$1,000
 - Of those, 7% of the transcript holds were based on a debt of less than \$100
- 42% of the debt-related *holds* preventing registration over both years were associated with unpaid debt of less than \$1,000
 - Of those, 5% of the registration holds were based on a debt of less than \$100

¹¹ Any discussion about holds means there may be more than one hold per student. Any unduplicated student-specific data presented will be noted as such.

¹² Unique to an institution, not across institutions.

¹³ Or 2,852 students.

¹⁴ Or 4,476 students.

- Modest statistical links exist between hold data and some institutional characteristics:
 - The likelihood a student will resolve any hold *decreases* as the percentage of Pell-grant recipients increases at an institution
 - Students who attend MSIs are *more likely* to resolve debt holds¹⁵ and transcript holds than students attending institutions that are not MSIs
 - Students attending undergraduate-only and undergraduate, graduate and/or professional institutions are *generally less likely* to resolve *any* hold than students attending community or technical colleges
- Four participating institutions changed policy or practice as a direct result of examining the data collected at their institution for this project
- Half of the institutions surveyed have a debt-forgiveness¹⁶ practice, which is greater than the national sample
- Most of the institutions surveyed (n=8) have debt elimination¹⁷ efforts, similar to the national sample

Descriptive Results

Students

More than half of the students in this sample were white; 48% were male; 78% were under 24 years old; and 11% were Hispanic (Appendix C). In the two years of data, 126,500 students had one or more holds placed on their record. These holds prevented registration, access to an official transcript, or both. Compared to the fall student count reported in IPEDS by year¹⁸ of all undergraduate students enrolled at these 14 institutions, 83% of students had one or more hold placed on their record in 2017-2018, and 79% of students in 2018-2019.

The cleaned data contained 370,754 holds. Based on the descriptions of the holds, nearly all appear to be intended to motivate a student to take an action, such as returning a book, paying a debt, seeing an advisor, or turning in a document. A small number of holds in this data appeared to be used as punitive measures to address code-of-conduct violations and other disciplinary or public safety issues.

¹⁵ See table 2 for details about the relationship between debt holds, transcript holds and registration holds

¹⁶ Forgiveness means the elimination of the debt without the student having to pay any dollar amount to resolve it.

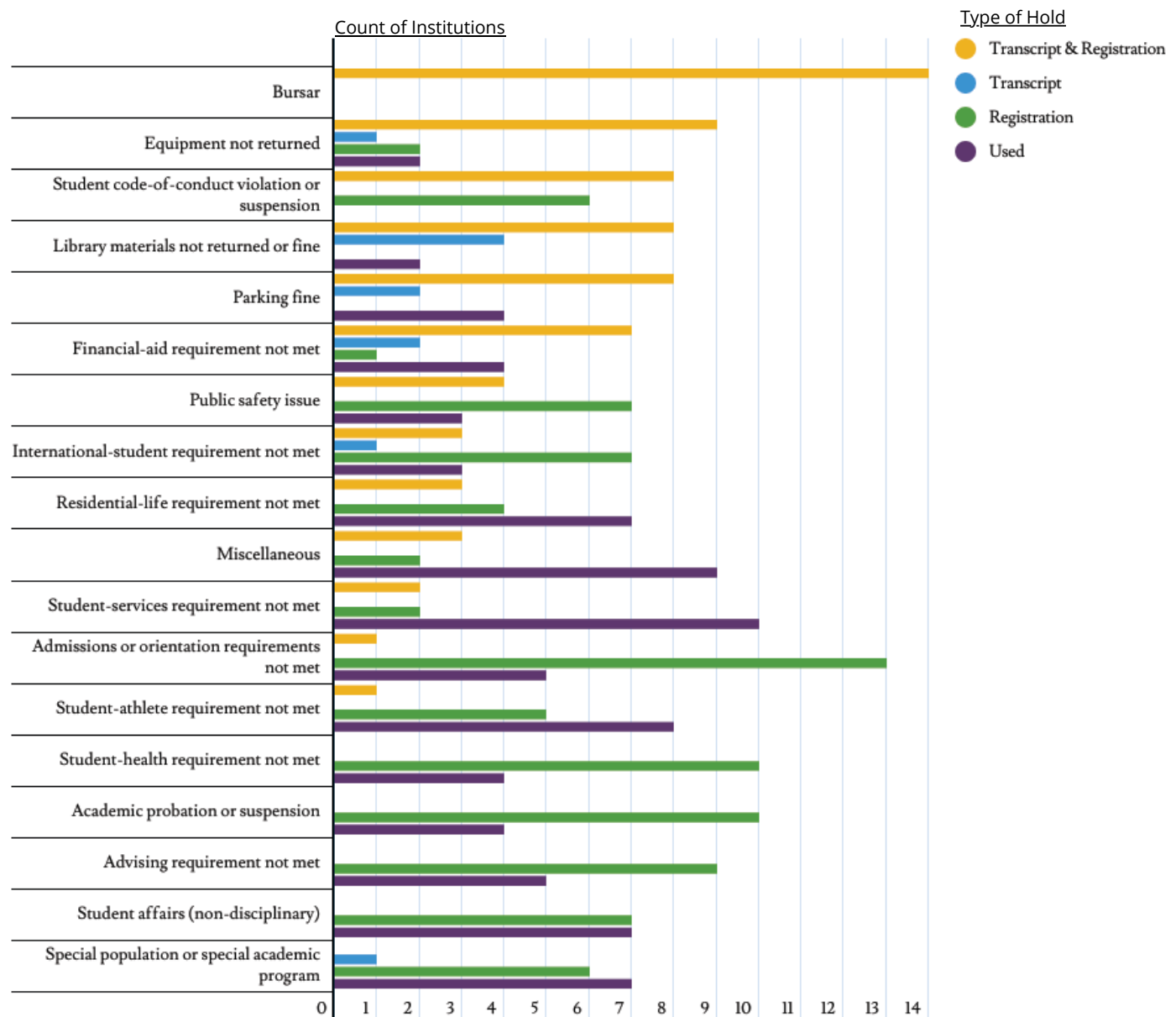
¹⁷ Debt-elimination efforts refer to any process aimed at helping a student pay their debt, not forgiving the debt.

¹⁸ 2017-2018: 103,324 IPEDS fall student count; 2018-2019: 103,767 IPEDS fall student count.

Hold

Hold descriptions in the data set helped form a question in the follow-up institutional participant survey, which was designed to categorize the reasons to impose a registration hold, transcript hold, or both. Results are displayed in Table 1. The bursar-related holds are the most common and stop both registration and access to an official transcript for all 14 institutions in this sample. Other common reasons for holds include unreturned equipment, student code-of-conduct violations, library-based holds, and parking fines. Stand-alone registration holds are more often associated with admissions, advising, and academic probation than other areas. Transcript-only holds were few.

Table 1 - Count of Holds by Hold Impact and Purpose.



Institutional participants reported 558 different hold codes available for use across the 14 institutions. Of those, 357 appear in this data (Figure 1 and Table 2). The balance of the hold codes was not applied to students over this timeframe. Appendix D provides further details on the holds used by impact, institutional type, and user.

Figure 1. Relationship Between the Types of Holds.

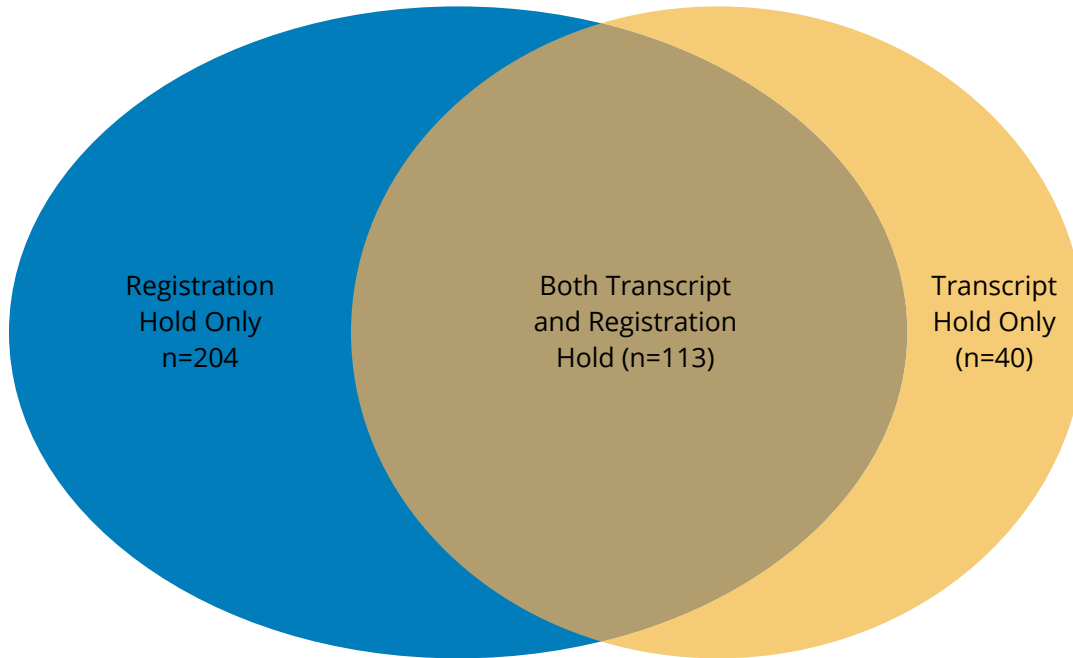


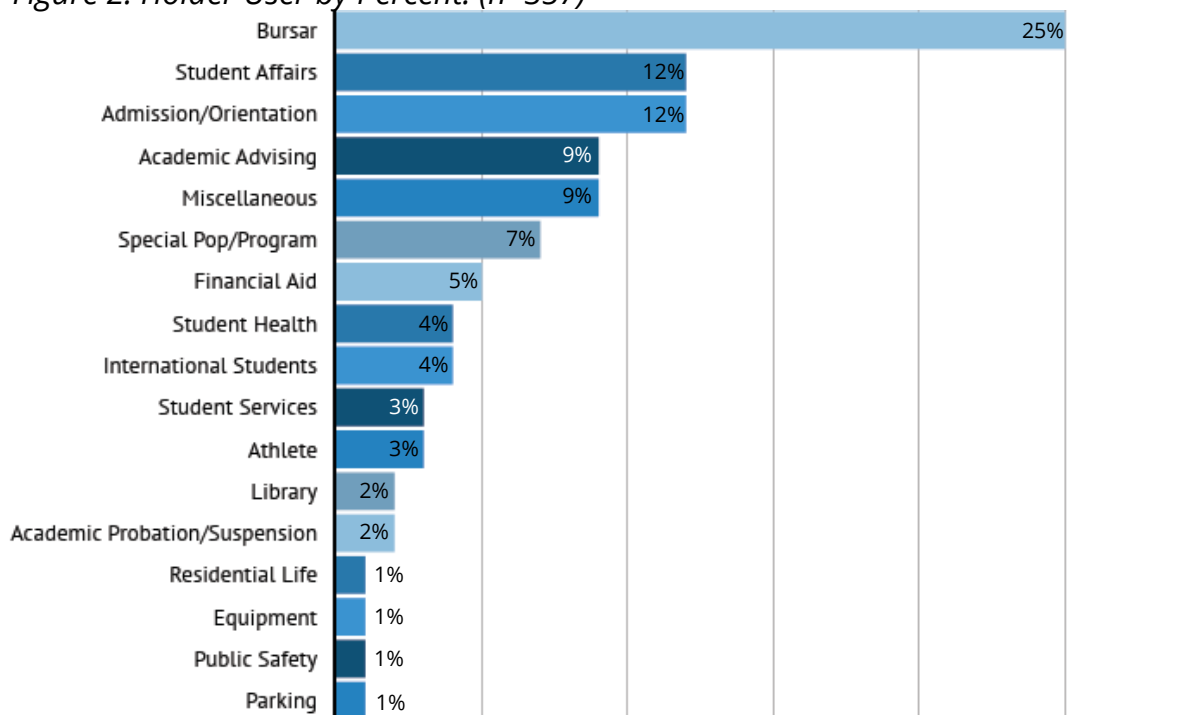
Table 2. Hold Counts by Type.

	All Holds	Debt Hold ¹⁹	Transcript Only	Registration Only	Both Registration and Transcript
Sum of Holds	357	96	40	204	113
Minimum Number	11	1	0	3	2
Maximum Number	45	14	10	30	22
Average Number	26	7	3	15	8
Percentage of Holds		27%	11%	57%	32%

¹⁹ A hold associated with debt may prevent registration, access to a transcript, or both. Debt holds are a subcategory of the other three.

Among all *holds* placed over the course of the 2 years in this sample, 15% were placed by the registrar, 26% by the bursar, 5% by financial aid, and the remaining 53%²⁰ by other administrative units. However, these four descriptors were the only options initially provided to the participants in this survey. Descriptors were based on a limited understanding of the breadth and depth of administrative users at each institution before data was collected. After data collection, it became apparent from the descriptions that more user- and hold-impact categories would be useful. The descriptions of the 53% of holds placed by other administrative units were used to code for similarities in users and purpose. The registrar-hold description data were also further differentiated by function, such as special student populations and international students. The resultant data is displayed in Figure 2 and highlights the wide-ranging administrative uses of transcript and registration holds.

Figure 2. Holder User by Percent. (n=357)



²⁰Note: Rounding margins may result in a total of 99% or 101% throughout the document rather than 100%.

Prior to participating in this project, most institutions in the sample did not regularly review the use of registration and transcript holds. However, most *did* regularly attempt to resolve outstanding non-debt holds, and *all* regularly attempted to resolve outstanding debt holds. Multiple modes of communication were used by most institutions to inform students of existence of a hold, including information in the student portal, being notified when attempting to register or order a transcript, personal email, phone calls, and other modalities. Only one institution used text messaging. In addition, a couple of participating institutions reported that individual units within the institution are responsible for monitoring outstanding holds placed by that unit and working with students to resolve them. The timing and frequency of the attempts to resolve depended on the purpose of the hold and varied by institution.

Debt Related Holds

Debt may reside at the institution, at a collection agency, or be written-off. The associated hold may remain in place even after the debt has been sent to collections or written-off. In addition, debt holds were not limited to just tuition debt. Debt holds include debt associated with library fines, parking fees, unreturned equipment fees, housing fees, and other charges. Nearly 121,000 debt-related *holds* were placed over the course of the two years in the study. Of those, 92% were resolved. However, a hold for the same amount and purpose may have been applied more than once per student, per academic year, and varied by institutional practice. The 8% of debt holds that went unresolved represented 7,311 individual *students*. The timing of the resolution of the debt hold is unknown. Resolutions could have occurred during the academic year the hold was applied or afterwards.

- The total unresolved debt over 2 years was \$15,318,160²¹
 - Average hold value was \$2,363
 - Minimum hold value was \$1
 - Maximum hold value was \$38,413
 - Standard deviation was \$2,969

For additional context, the average tuition rate, excluding fees, among the 11 institutions that provided debt amounts was \$13,317 dollars per year in 2018-2019, based on data from the NCES College Navigator. Minimum tuition was \$3,120, and the maximum was \$42,135, with a standard deviation of \$10,173.

²¹Of the 11 institutions that provided debt amount information.

Forty-two percent of unresolved-debt holds that prevented access to a transcript²² were for less than \$1,000 (Table 3).

Table 3. Unresolved Debt Holds that Prevent Access to a Transcript by Dollar Range.

	Count of Unresolved Holds	Percentage of Unresolved Holds	Total Dollar Value of Holds
\$1 to <100	432	7%	\$21,922
\$100 to <\$1,000	2201	35%	\$1,106,892
\$1,000 to <\$2,000	1346	22%	\$1,941,323
\$2,000 to <\$3,000	676	11%	\$1,632,557
\$3,000 to <\$4,000	413	7%	\$1,428,401
\$4,000 to <\$5,000	408	7%	\$1,815,888
5,000 or more	750	12%	\$6,391,543
	Total of Unresolved Holds: 6226		Total Debt for Unresolved Transcript Holds: \$14,338,526

Forty-two percent of unresolved debt holds that prevented registration²³ were for less than \$1,000 (Table 4).

Table 4. Unresolved Holds that Prevent Registration by Dollar Range.

	Count of Unresolved Holds	Percentage of Unresolved Holds	Total Dollar Value of Holds
\$1 to <100	202	5%	\$11,143
\$100 to <\$1,000	1601	37%	\$845,167
\$1,000 to <\$2,000	1003	23%	\$1,445,944
\$2,000 to <\$3,000	456	11%	\$1,092,459
\$3,000 to <\$4,000	258	6%	\$888,851
\$4,000 to <\$5,000	268	6%	\$1,201,308
5,000 or more	527	12%	\$4,605,027
	Total of Unresolved Holds: 4315		Total Debt for Unresolved Registration Holds: \$10,089,899

²² May also have prevented registration.

²³ May also have prevented access to a transcript.

When participants were asked what stood out most from these data, one noted, “The number of students who had holds preventing registration and how much we rely on those to control our business processes.” Another remarked, “The scope of the data-identification process brought to light some hold-use practices at our institution are outdated and need to be reconsidered.” A third stated, “It was interesting to find that there are 558 unique holds at the 14 institutions. This is a large number of holds per institution preventing registration and/or access to a transcript. It was also interesting to review that a large percentage, around 42%, have holds of \$1 to \$1,000. This seems like a small amount in comparison to holding a student back from re-enrolling or transferring.”

Statistical Analyses

Overall Comments about the Statistical Analyses

As noted above, the data collection approach, the variables captured, and the research questions addressed appear to be unique because it appears no one has collected and examined data in this manner. Due to this fact, this is an exploratory study examining data from a nonrepresentative sample of institutions.

Many statistical techniques could be used with this data. However, logistic regression and ordinary least squares (OLS) were initially selected to examine the data. They were selected because they can provide models that best describe the relationship between the outcome variable (type of hold, impact of hold, resolved vs. not resolved, and debt amount per student) and the explanatory variables (institutional and student characteristics) using the least number of explanatory variables. The outcome of each can be readily described in layman's terms. However, ultimately OLS was rejected as a useful method due to limitations in this data set. Although OLS can be used to examine unique debt amounts per hold by student characteristics and debt characteristics, it was determined that any correlation between the debt amount and institutional characteristics or student characteristics was likely confounded by the differences in tuition and fees by institutional characteristics and students served.

Several iterations of logistic regression models with different dependent variables were examined and ultimately narrowed down to 10 primary models. Pseudo R^2 is a measure of how "good" a logistic regression is at explaining the relationship between the outcome variable and the explanatory variables.²⁴ Several sources attempt to address the question of what is a "high enough" value of pseudo R^2 , and their responses tend to be essentially "well, it depends."

For this research, McFadden's (1977) proposed rule of thumb is used to define the acceptable pseudo R^2 , with 0.2 to 0.4 representing "an excellent fit." Using this rule, only 3 of the 10 models met the minimum pseudo R^2 suggested by McFadden. The logistic regressions designed to look for statistical differences by institutional characteristics for the resolution of debt holds, registration holds, and transcript holds met the criteria. None of the analyses by student characteristics met McFadden's minimum criteria. Given the nearly ubiquitous use of holds, there was no meaningful differences in the characteristics of students who had holds applied.

²⁴An explanation of pseudo R^2 here: <https://stats.idre.ucla.edu/other/mult-pkg/faq/general/faq-what-are-pseudo-r-squareds/>

²⁵McFadden, D. (1977) Quantitative Methods for Analyzing Travel Behaviour of Individuals: Some Recent Developments, Cowles Foundation Discussion Papers 474, Cowles Foundation for Research in Economics, Yale University.

Some of the independent variables requested from the participants were not readily available or consistent across all 14 institutions and were excluded from the analyses. All remaining independent variables were initially included in the 10 analyses. Additional independent variables were subsequently excluded from one or more of the analyses to eliminate collinearity and to maximize the fit of the logistical regression model (pseudo R^2). A list of the analyses completed is provided in Appendix E.

The independent variables remaining in the three models are:

- AACRAO institutional type
- Minority-serving institution (MSI) status
- Pell-grant-percentage category

The Pell-grant-percentage category is used as a proxy for student socioeconomic status and an institutional characteristic in the models.

Debt Holds Resolved (pseudo $R^2=.33$)²⁶

- A student is less likely to resolve a debt hold if he or she:
 - attends an institution with more than 20% Pell grant recipients (Pell recipients)
 - attends an undergraduate-only institution or an undergraduate, graduate and/or professional institution, as compared to a community or technical college
- A student is more likely to resolve a debt hold if he or she attends an MSI

Registration Holds Resolved (pseudo $R^2=.20$)²⁷

- A student is less likely to resolve a registration hold if he or she:
 - attends an institution with more than 20% Pell recipients
 - attends an undergraduate, graduate and/or professional institution, as compared to a community or technical college
 - attends an MSI
- A student is more likely to resolve a registration hold if he or she attends an undergraduate-only institution, as compared to a community or technical college

Transcript Holds Resolved (pseudo $R^2 = .28$)²⁸

- A student is less likely to resolve a transcript hold if he or she:
 - attends an institution with more than 20% Pell recipients
 - attends an undergraduate-only institution or undergraduate, graduate and/or professional institution, as compared to a community or technical college
- A student is more likely to resolve a transcript hold if he or she attends an MSI

²⁶Debt-holds resolved indicates an institution recorded the debt hold as being cleared or discharged. Debt holds are a subgroup of transcript and registration holds. See table 2 for further information.

²⁷In this context, registration holds include holds that prevent registration and holds that prevent both registration and the issuance of transcripts.

²⁸In this context, transcript holds include holds that prevent the issuance of transcripts and holds that prevent registration and the issuance of transcripts.

In all models, the likelihood a student will resolve a hold decreases as the percentage of Pell recipients at an institution increases. If we assume the percentage of Pell recipients at an institution is a proxy for the relative affluence of the student population, then as the affluence of the student population at an institution decreases, the likelihood a student will resolve his or her hold (of any type) also decreases. In other words, among students who have holds, those at less affluent institutions are less likely to resolve those holds.

In general, students attending undergraduate-only and undergraduate, graduate and/or professional institutions are less likely to resolve their holds than students attending community or technical colleges. This result may seem to conflict with the finding that institutions with a higher percentage of Pell recipients are related to lower hold-resolution rates because community or technical colleges tend to enroll a higher percentage of Pell recipients. However, logistic regression isolates each independent variable's effect in the model. In other words, the results of this analysis keep all other variables constant by ignoring the institutional type and MSI status relative to the percentage of Pell recipients.

Another way to account for this seemingly conflicting information is undergraduate-only and undergraduate, graduate and/or professional institutions in this sample have more categories of holds available to use than the number of categories of holds at community or technical colleges. These institutions appear to apply holds for more reasons than community or technical colleges. In addition, the average tuition at undergraduate-only institutions and undergraduate, graduate and/or comprehensive institutions is higher than the average tuition at community or technical colleges in this sample, so the unpaid-debt-hold average is likely to be lower at community or technical colleges.

Students who attend MSIs are more likely to resolve their debt holds and transcript holds than students attending institutions that are not MSIs. In this sample of 14 institutions, this could be related to the size of the institution. The MSIs in this sample are comparatively small institutions that may provide more intense interventions to resolve unpaid debt and transcript holds than larger institutions. Or it may be related to the fact MSIs in this sample have fewer types of transcript and debt holds than non-MSIs. The more positive rate of debt-hold resolution may also be tied to when the hold is placed on the student and the source of funding for the debt. For example, some institutions place a hold on a student as soon as a debt is incurred (when a student registers). This application of a hold may occur before any non-self-pay funding (financial aid, employer reimbursement, or veteran educational benefits) has been applied to the student's account to cover the debt. This results in the application of debt hold to a student's record, which is resolved in a short period of time when the funds are disbursed.

However, these hypotheses seem to be disproved by the conflicting result that students at MSIs are less likely to resolve registration holds than students at non-MSIs, even though the average number of registration holds is less at the MSIs. Perhaps the result related to registration holds is linked to Mr. McCoy's statement from the introduction that practices regarding holds are often seen by students as stop signs rather than yield signs.

Limitations

Data from a typical-case set of 14 institutions of varying characteristics was examined in this exploratory study. Due to the sample size and sampling technique, the institution-specific practices may not be generalizable. In addition, the sample size, sampling technique and multi-valued nature of the hold data necessitated the need to perform regressions for institutional characteristics and student demographics separately. Data did not include the dollar amount of tuition and fees paid by individual students and standard tuition varied within and between institutions, further limiting the comparative value of this data.

Holds by their very nature come and go. Students may have several at one time. They may clear some while incurring others. It was not possible to control for the fact many students had more than one hold placed on their record each year and often for the same reason and/or same dollar amount. This also made it difficult for institutions to report the status of the hold (resolved or not). Furthermore, the student transfer, completion and stop-out data proved intractable for several institutions to provide. Clarity on these data could provide further insights as to whether unresolved transcript holds prevented the student from enrolling elsewhere.

Data on whether a student had earned transfer credits on his transcript was not in this data set. A student may owe money but may have withdrawn or stopped attending classes before any credits were earned but after the drop-add deadline for a full refund. In such instances, a former student may be less inclined to resolve a debt hold because there are no stranded credits. Moreover, the percentage of students who incurred a debt related to the return of Title IV funds is unknown. Nor is it known if a student who completed a course earned a grade sufficient to transfer. Without earned credits or the potential for earned credits to transfer or advance, was the student's progress actually impeded by application of a transcript hold?

Implications for Future Research

This was intended to be an exploratory study, and it is clear from the results that further research is warranted to build on and bring more clarity to these findings. Within the 14 institutions examined, no conclusive evidence was found to support that student demographics are related to the resolution of debt, transcript, or registration holds. Previous research²⁹ suggests the issues of institutional debt and stranded credits may be larger problems at institutions that enroll larger shares of historically underserved students, including lower-income and underrepresented minority students. Although this quantitative analysis did not confirm these same patterns across the sample of 14 institutions, interviews with participants suggest that this may be an issue at some of the colleges and that institutional context plays an important role in the equity implications of registration and transcript holds. Large-scale administrative data from a census or representative sample of institutions would allow future studies to clarify the relationship between student demographics and holds.

Further analyses could benefit from a larger sample of institutions. With a larger sample, a broader range of variables could be examined, the debt amount per student could be meaningfully analyzed, and statistically significant differences based on student characteristics may be uncovered.

Recommendations

To conclude this research, AACRAO held a virtual convening of the institutional participants and other interested parties. The convening was held with the intention to gather feedback from external parties on the research completed, to hear from institutional participants about reflections on the project, and to crowd-source the beginnings of a set of recommendations for practice. The following recommendations are made based on the research findings and discussions at the convening:

- Examine the relative value of using a hold versus other motivators; that is, is a hold the best solution for the issue?
- Minimize the use of holds
- Establish and maintain clear communication on how a student can resolve a hold
- Develop a process to manage the creation and use of holds if one does not already exist

²⁹<https://www.policymattersohio.org/files/research/collectagainstfuture1.pdf>

- Routinely examine the use and impact of registration and transcript holds, and include the following components in that analysis:
 - Identify who administers holds and for what purpose
 - Understand what percentage of the student population is impacted
 - Determine the rate of resolution and ascertain the reasons why some are not resolved, and address those issues
 - Understand the student characteristics of those with holds and whether they differ statistically from your overall population
 - Understand the student characteristics of those with unresolved holds and whether they differ statistically from your overall population
 - Examine the value of debt holds compared to how much the student has already spent at your institution
 - Calculate the number of credits stranded due to the use of transcript holds as a means to understand the magnitude of the impact on students of the use of holds
- Appraise how the existence of a hold is communicated to a student:
 - Evaluate the effectiveness of each form of communication
 - Conduct focus groups to determine if the messaging about the hold is interpreted as a yield and not a stop, where applicable
 - Evaluate how the guidance provided to students about resolving holds is interpreted by the students
- Consider setting the debt threshold for withholding a transcript or allowing a student to register equal to that of one three-semester-credit class
 - Build rigorous processes to help the student resolve the outstanding debt before the following semester
- Evaluate whether there is a negative consequence to allowing a student to register for future terms with an outstanding balance
- Reevaluate the use of holds tied to debt of anything greater than zero
- Establish avenues for routine exceptions to release an academic transcript held for a debt if the release of the transcript will help the student pay off the debt (for example, for employment or licensure)
- Examine the timing of the placement of holds for issues of equity. For example, is a hold placed on a student pending the posting of financial aid from any source to his account (i.e., stopping a student with pending aid from registering where others are not stopped)?
- If a program does not already exist, establish a debt forgiveness program for nominal debts where allowed by law.

Appendix A: Institutional Characteristics³⁰

Control	Type	Size	MSI details	Open Admission	% PELL	% White	Tuition and Fees 2018-2019 ³¹			
							Everyone	In-State	OOS	In-district
Private, not-for-profit	Undergraduate	2,500 - 4,999	N/A	No	20% to 40%	25% to 75%	\$42,135			
Public	Community or technical college	1,000 - 2,499	N/A	Yes	>40%	25% to 75%		\$4,364	\$6,647	
Public	Community or technical college	5,000 - 9,999	PBI	Yes	>40%	25% to 75%	\$6,480			
Public	Undergraduate, graduate and/or professional	5,000 - 9,999	N/A	No	>40%	25% to 75%		\$8,373	\$18,333	
Private, not-for-profit*	Undergraduate	Under 1,000	PBI	No	>40%	25% to 75%	\$18,600			
Public	Community or technical college	5,000 - 9,999	N/A	Yes	>40%	25% to 75%		\$5,520	\$7,140	\$3,120
Public	Undergraduate, graduate and/or professional	2,500 - 4,999	N/A	Yes	20% to 40%	>75%		\$5,928	\$19,257	
Public	Undergraduate, graduate and/or professional	5,000 - 9,999	HBCU	No	>40%	<25%		\$7,900	\$18,167	
Public*	Undergraduate, graduate and/or professional	20,000+	N/A	No	20% to 40%	25% to 75%		\$9,625	\$27,295	
Public	Undergraduate, graduate and/or professional	10,000 - 19,999	N/A	No	20% to 40%	25% to 75%		\$8,523	\$20,067	
Public	Undergraduate, graduate and/or professional	20,000+	N/A	No	<20%	25% to 75%		\$13,680	\$34,310	
Public	Undergraduate, graduate and/or professional	10,000 - 19,999	N/A	No	20% to 40%	25% to 75%		\$8,178	\$20,207	
Public	Community or technical college	5,000 - 9,999	N/A	Yes	>40%	>75%		\$4,522	\$16,810	
Public*	Undergraduate, graduate and/or professional	10,000 - 19,999	N/A	No	20% to 40%	25% to 75%		\$8,270	\$17,452	

³⁰For purposes of AACRAO membership, total enrollment is defined as full-time enrollment plus 1/3 part-time enrollment.

³¹From NCES College Navigator

Appendix B: Data Dictionary for Data Collection

- The data file must be limited to:
- One line per hold
- Degree-seeking undergraduate students
- Full-time and part-time students
- No dual-enrollment high school students
- New and returning students
- Demographic data defined using IPEDS categories

Item	Name	Description	Expected Format
ID	Your institutional UnitID from IPEDS	No greater than 9-digit ID (numeric or alphanumeric) for this project only. Institution must retain crosswalk to SIS in case of questions about the data	alphanumeric
YR	Year hold was applied	2017-2018 = 0 2018-2019 = 1	numeric
UNITID	IPEDS UnitID	Your IPEDS institutional UNITID	numeric
ENRFT	Fall enrollment, full-time count	Fall IPEDS (EF) full-time enrollment count. Specific to the year of the hold	numeric
ENRPT	Fall enrollment, part-time count	Fall IPEDS (EF) part-time enrollment count. Specific to the year of the hold	numeric
OPEN	Open enrollment	Is your institution open enrollment? YES = 1 NO = 0	numeric
MINOR	Minority serving	Is your institution a minority serving institution? YES = 1 NO = 0	numeric
HBCU	HBCU	Is your institution an HBCU? YES = 1 NO = 0	numeric
CONTROL	Public or Private	Is your institution a public institution? YES = 1 NO = 0	numeric
TYPE	Type of institution	Community or technical college = 0 Undergraduate only = 1 Comprehensive institution = 2	numeric
ENRSTD	Student enrollment type	Fall-enrollment type of the reported student for year of hold Part-time = 0 Full-time = 1	numeric
GENDER	Gender	Student's reported gender (IPEDS categories) Male = 0 Female = 1 Unknown or other = null	numeric
ETHNIC	Ethnicity	Does student identify as Hispanic? (IPEDS categories) Non- = 0 Hispanic value = 1 Unknown = null	numeric

Appendix B: Data Dictionary for Data Collection

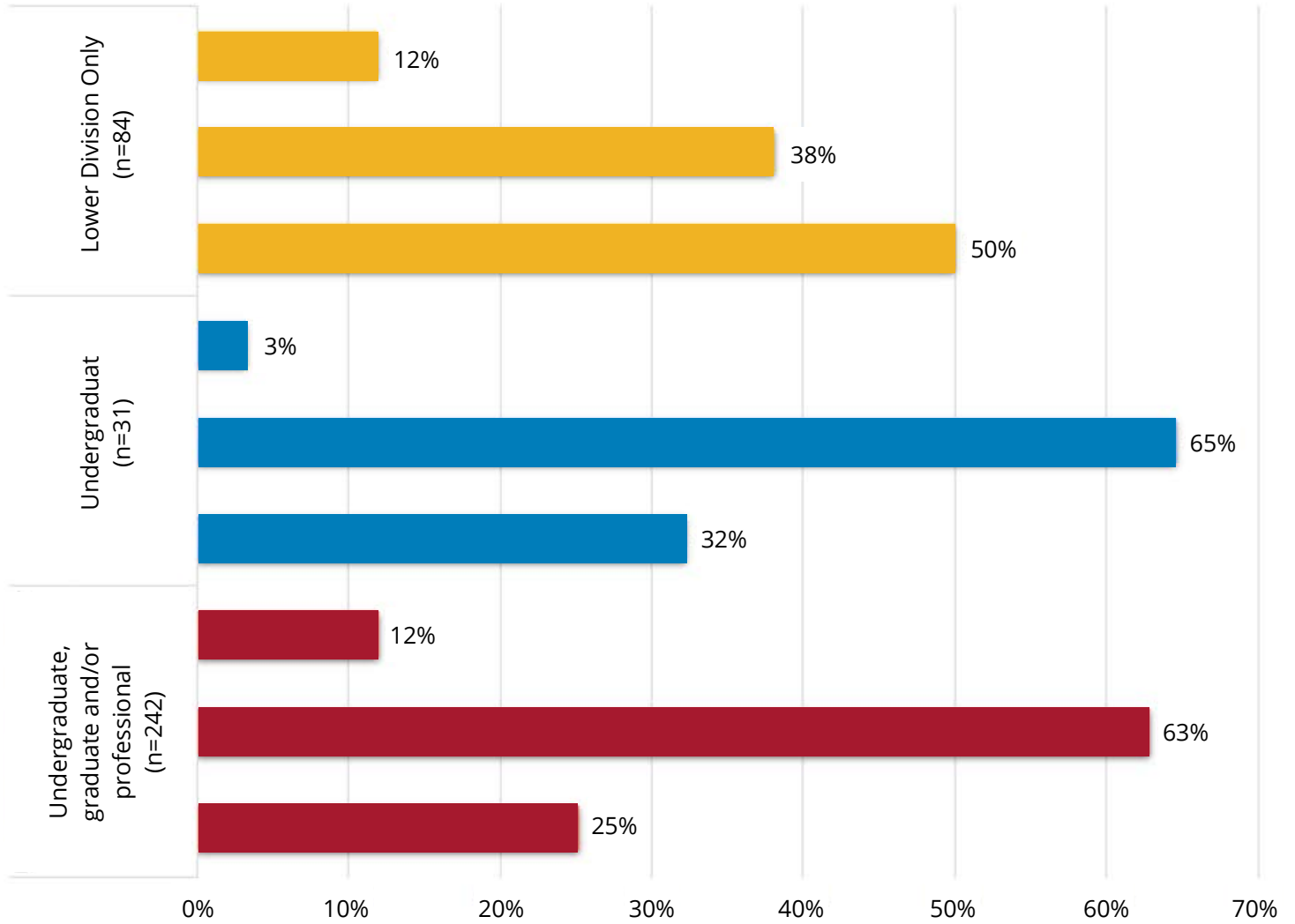
Item	Name	Description	Expected Format
RACE	Race	Student's reported race (IPEDS categories) Unknown = null American Indian or Alaska Native = 1 Asian value = 2 Black or African American value = 3 Native Hawaiian or Other Pacific Islander value = 4 White value = 5 Two or more races value = 6	numeric
AGE	Age category	Student's age at time hold was placed Under 24 = 0 24 or older = 1	numeric
NDEBT	Nondebt hold	A hold for reenrollment or official transcript not associated with an institutional debt (e.g., lab equipment, library book) (this column and the one below should always be opposites; if NDEBT is YES than DEBT must be No) YES = 1 NO = 0	numeric
DEBT	Debt hold	If the hold is related to a debt (this column and the one above should always be opposites; if NDEBT is YES than DEBT must be No) YES = 1 NO = 0	numeric
AMOUNT	Dollar amount of debt hold	Dollar amount of debt associated with a debt hold (DEBT); round to nearest dollar (no decimals); NO dollar sign; NO comma	numeric
REGH	Registration hold	Does the hold recorded for this student prevent registration? YES = 1 NO = 0	numeric
TRANH	Transcript hold	Does the hold prevent a student from accessing an official transcript? (REGH and TRANH can be Yes if a single hold does both) YES = 1 NO = 0	numeric
RESLVD	Hold resolved	Has the hold been resolved? (Hold has been ended, NOT overridden) YES = 1 NO = 0	numeric
COMP	Completer	Has the student completed the educational credential for which he/she was enrolled? YES = 1 NO = 0	numeric
STOP	Stop out	Student should have enrolled in next fall term but failed to do so (i.e., did not complete the credential for which he/she was enrolled AND did not transfer). Year specific, so for 2017-2018 hold did they reenroll for fall 2018 and for 2018-2019 hold did they reenroll for fall 2019? YES = 1 NO = 0	numeric
TRANS	Transferred	Student is known to have transferred without graduating. Year specific, so for 2017-2018 hold did they transfer for fall 2018 and for 2018-2019 hold did they transfer for fall 2019? YES = 1 NO = 0 Null = unknown	numeric
BURS	Bursar hold	Is the bursar (or institutional equivalent) the source of the hold? YES = 1 NO = 0	numeric
REGIST	Registrar hold	Is the registrar (or institutional equivalent) the source of the hold? YES = 1 NO = 0	numeric
FINAID	Financial-aid hold	Is financial aid (or institutional equivalent) the source of the hold? YES = 1 NO = 0	numeric
OTHER	Other source of hold	Source of hold is something other than REGIST, FINAID, BURS YES = 1 NO = 0	numeric
CODE	Hold code	The hold code from your SIS.	alphanumeric

Appendix C: Student Characteristics and Annual Enrollment

- 46% male
- 78% Under 24 years old
- Ethnicity, 11% Hispanic
- Race
 - 60% white
 - 17% Black or African American
 - 12% Asian
 - 6% 2 or more races
 - 1% American Indian or Alaska Native
 - < 1% Native Hawaiian or Other Pacific Islander
 - Remainder unknown
- Total number of students
 - 2017-2018 103,324 fall student count, per NCES definition
 - 2018-2019 103,767 fall student count, per NCES definition

Appendix D: Additional Holds-Used Details

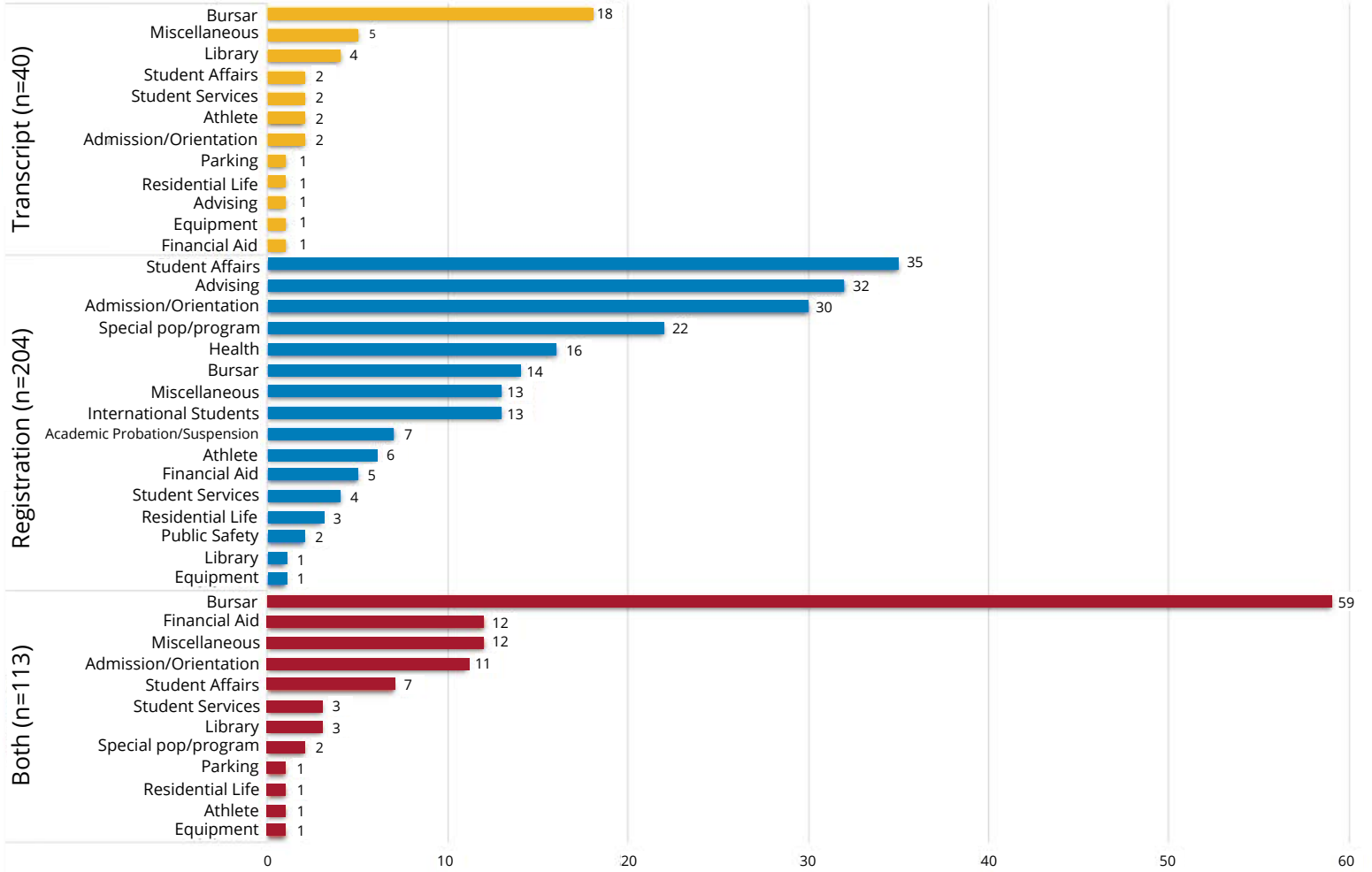
Percentage of Holds by Impact and Institutional Type (n=357)*
*n=hold count



Appendix D: Additional Holds-Used Details

Count of Holds Used by User/Purpose and Impact (n=357)*

*n=count of holds



Appendix E: Summary of Analyses

Logistic Regressions

- Resolution of debt holds by institutional characteristics - Pseudo $R^2 = 0.33$
- Resolution of debt holds by student characteristics - Pseudo $R^2 = 0.08$
- Resolution of registration holds by institutional characteristics - Pseudo $R^2 = 0.20$
- Resolution of registration holds by student characteristics - Pseudo $R^2 = 0.06$
- Resolution of transcript holds by institutional characteristics - Pseudo $R^2 = 0.28$
- Resolution of transcript holds by student characteristics - Pseudo $R^2 = 0.07$
- Use of registration holds by institutional characteristics - Pseudo $R^2 = 0.11$
- Use of registration holds by student characteristics - Pseudo $R^2 = 0.02$
- Use of transcript holds by institutional characteristics - Pseudo $R^2 = 0.06$
- Use of transcript holds by student characteristics - Pseudo $R^2 = 0.05$

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