

Abstract

Stealth applicants who do not flow through the traditional admission funnel now represent nearly one-third of the national applicant pool. This study employs a consumer behavior framework to examine the behaviors of stealth applicants at a private university. The findings provide a rich illustration of how stealth applicants search for college.

Keywords: stealth applicants; enrollment management; consumer behavior; college choice

An increasing number of applicants to colleges and universities forgo the exploratory period as visible prospects and research anonymously (Noel-Levitz 2007, 2009). Initially called "secret shoppers," these applicants now comprise more than 33 percent of the applicant pool at public and private universities, and their numbers continue to increase. Noel-Levitz (2010) reported stealth applicants increased from 26 percent to 35 percent at public fouryear universities and from 28 percent to 32 percent at private fouryear universities from Fall 2009 to Fall 2010. These anonymous searchers do not flow through the visible admission funnel from prospect to applicant to matriculant. Stealth applicants conduct their college searches outside of universities' awareness. Instead of gathering information through traditional channels—requests for information, attending on- or off-campus recruiting events or meeting with admission representatives at their high schools—the application for admission represents their first recorded contact with the institution.

While underrepresented in the research literature, stealth applicants receive increasing coverage in popular press (Hoover 2008). Admission professionals and consultants consider the impact of stealth applicants as a contributing factor impacting institutions' ability to manage enrollments (Mager 2009; Noel-Levitz 2007, 2009; Next Student 2008). Two research questions guided this study's understanding of stealth applicants: 1) How do stealth applicants search for college? 2) Why do stealth applicants not participate in the traditional college search process?

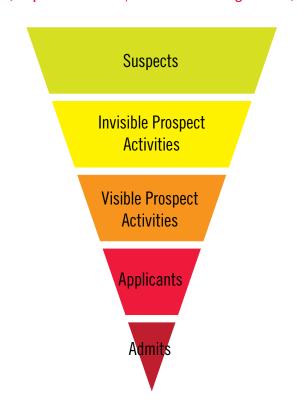
Much of the empirical work in enrollment modeling relies on preapplicant contacts to predict enrollment. These enrollment models consider actions, such as sending test scores, interactions with the institution (campus visits, attending programs), and methods of requesting information (calls, emails) as predictors of student choice behavior. At the most basic level, the choice process consists of three stages: the *aspiration* to attend college, *application* to colleges and the *enrollment* decision.

Admission officers use historical data to predict how students progress through the search and enrollment process. The traditional

admission funnel model tracks the movement of prospective students through specific stages: prospect, applicant, admit, and matriculant (Figure 1).

Traditional applicants enter the admission funnel through visible patterns of behavior as active prospects. By tracking contact with these prospective students, admission officers predict, based on the behavioral patterns of previous pools, how many prospects who enter the funnel through a specific method or combination of methods will ultimately apply for admission and matriculate (Goenner and Pauls 2006).

Figure 1: The Admission Funnel (adapted from Litten, Sullivan and Brodigan 1983)



Despite serving as the foundation of enrollment planning for the past three decades, the admission funnel proves inadequate today. "We can no longer act out the archaic funnel metaphor that centers on the idea that if you begin with enough prospects at the broad end of the funnel, enough matriculants will dribble out the narrow end" (Sevier 2000). Studying the unseen search actions of stealth applicants is the core challenge in understanding and predicting stealth behavior. The inability of historical tools used to predict enrollment outcomes illustrates how the admission funnel is broken (Mager 2009, Noel-Levitz 2009).

Consumer Behavior Literature

At the core, enrollment management remains a study of choice. While most studies analyze the final choice of where a student will attend college, the decision to attend a specific college represents a series of choices involving both the student and the college in alternating decisions. College choice proves exceedingly "difficult to study because it is complex, longitudinal, interactional, and cumulative" (DesJardins, Dundar and Hendel 1999). Consumer behavior helps commercial entities identify and understand the patterns consumers follow as they search for product information and make purchase decisions. Consumers follow a relatively sequential series of steps as "information processors" (Jacoby 1976) in making buying decisions.

Information Search

To the extent that prospective college students operate as consumers in the higher education marketplace, research suggests that, as consumers, students follow traditional behaviors during information search (Kiecker 2004). In doing so, students use internal and external search to align what they perceive to be true about a product or choice with the new data they are gathering (Jacoby, Chestnut and Fisher 1978). Two types of consumer information search, internal and external, normally occur sequentially (Hoyer and MacInnis 2007).

Internal Search

There are more than 3,000 colleges and universities in the US but, like most consumers, students will consider only a fraction of the available choices during internal search. During the internal search process, the consumer recalls prior experiences, feelings and impressions about possible solutions to the problem. Individual biases reflect the tendency of consumers to remember information that reinforces their existing beliefs and ideologies (Jacoby, Chestnut and Fisher 1978). Marketers and researchers struggle to influence and track internal search. If a prospective student already believes a large state school impersonal, for example, they more easily remember experiences that reinforce feelings of impersonal treatment.

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The pool of possible brands constructed by the consumer during internal search becomes the consideration set, evoked set or relevant set in commercial marketing terms (Hauser and Wernerfelt 1990) or the college choice set in admission search literature (Jackson 1982). Even when the consideration set includes several good options, consumers perform additional search to narrow down those alternatives (Hoyer and MacInnis 2007). Attributes recalled during internal search might include details about rankings, majors or facilities, but consumers' limitations of recall constrain information to mostly generalized or simplified features (Hoyer and MacInnis 2007). Positive and negative preferences combine to create an evaluation of the product or school. Students more easily recall likes and dislikes than specific details, but subject to memory lapse and product confusion especially among those with similar attributes (Kretchmar and Memory 2010). Internal search also involves recalling specific personal experiences. In college search, this may include remembering a middle school field trip or homecoming events attended at a parent's alma mater.

External Search

Most consumers perform external as well as internal searches, especially when making high-cost, high-risk choices or decisions for which the final outcome proves difficult to predict (Kiecker 2004). Pre-purchase external search utilizes traceable and less visible resources, such as friends, family, teachers, counselors, print and electronic publications, advertising, and retailer or campus visits to gather information before making product decisions, or in this case, before making decisions about applying to a specific college. Admission officers track participation in more visible external search activities including campus visits, requests for information, and correspondence with an admission officer as a way to gauge prospective students' interest in attending (Lay 2004). Clear parallels exist between the five types of external search in consumer behavior and information gathering and the college search process (Table 1).

Table 1. External Search Categories in **Commercial and College Search**

	Commercial Search	College Search		
Retailer Search	Visits or calls to stores	Campus visits, calls to admission		
Media Search	Advertising, Web and other marketing materials	Review of view books, Web pages and other publications		
Interpersonal Search	Advice from friends, relatives, neighbors, coworkers, and/or other consumers	Advice from friends, relatives, teachers, counselors, and current students		
Independent Search	Contact with independent sources of information	Guidebooks, ranking publications, Web sites, social networking, etc.		
Experiential Search	Product samples, service trials	Class visits, overnight visits in residence halls		
Note: Adapted from Hoyer and MacInnis (2007)				

The risks and challenges of college selection motivate prospective students to perform an extensive search for the appropriate college. The uncertainty surrounding the final decision creates a high risk of making a poor college choice. External search plays a role in reducing the risk of consumer choices, but prospective students as consumers find limited success in evaluating the quality of higher education today (Zemsky, Wegner and Massy 2005).

Research Methods

This study employed a single case design to better understand the college search and decision process from the standpoint of the stealth applicant. Qualitative research centered on individual experiences creates richer data to examine the stealth applicant experience. We selected a single institution, "Private Doctoral University," for this study. Located in a large metropolitan area, Private Doctoral University (PDU) holds an endowment of more than one billion dollars and receives nearly two-thirds of its operating revenue from tuition. The university's admission rate is approximately 50 percent with a geographically diverse student body. We utilize pseudonyms for both the institution and students to protect their identities.

Data collection focused on the college search process viewed retrospectively by a group of 23 current students whose first recorded contact with the university was the submission of the application for admission. The pool of students selected for interviews enrolled as first-year students in Fall 2009 and had no prospect record pre-dating their application for admission. Researchers cross-checked admission records with the institution's primary recruiting events and through interview questions

to ensure applicants did not have contact with the admission office prior to submitting their application. Students who have special circumstances, such as international students and recruited student-athletes, were excluded from the interview cohort, resulting in a pool of 121 first-year stealth applicants.

A purposeful selection of interview subjects considered factors including in-state/out-of-state residency, public or private high school, gender, ethnicity, and socioeconomic background. As a group, PDU's stealth applicants and those interviewed were more often out-of-state, minority applicants who applied during the regular action admission cycle. Conducted during the 2009-2010 academic year, the interviews lasted approximately 30-60 minutes, were audio taped and transcribed verbatim.

The researchers coded each transcript subject, and combined, reordered and broke the data into thematic groupings to identify key phrases and codes for analysis. Internal and external search methods structured in consumer behavior research informed the development of themes. The constant comparative method (Glaser 1978) allowed researchers to examine expected and emergent themes from the data. Researchers obtained trustworthiness through the triangulation of multiple interviews, consideration of participant bias and peer evaluation where we consulted colleagues with admission experience to verify the themes discovered. In particular, multiple interviews checked for distortion or exaggerated responses (Merriam 1998) and through "observing life from separate yet overlapping angles makes the researcher more hesitant to leap to conclusions and encourages more nuanced analysis" (Rubin and Rubin 2005).

Findings

Internal Search

In college search, top-of-mind brands may represent high prestige schools or schools with highly visible programs. Aram, a highachieving, African-American, physics major from Texas, knew "from a very young age... Stanford is always one of my dreams," but he also said that at his high school:

"It's really crazy how many people base their college, the university they want to go to, simply because of like basketball or football teams, which is ridiculous to think about. But I have so many friends who are going to the University of Oklahoma just because they love the OU football team."

Most students could not remember all the schools they initially considered, and a surprising number could not name the specific

universities where they applied or visited less than a year after they applied. As Kofi, an African-American from New York, explained how students identify an initial set of schools to research, he mentioned that most students like him are "naturally biased" toward "the schools that [we] heard enough about... So you look at Harvard, it's in every movie with smart people in it." When considering these institutions during internal search, students often swiftly discard (as mismatches) the high-profile or name-brand colleges recalled during internal search.

For students, attribute preferences limited the number of universities considered during internal search. Some attributes were nonnegotiable while others were simply preferences. Identified during the internal search, the consideration of which schools would fulfill these attributes primarily occurred during external search. Alastair, an economics major from Utah, began his search with a lengthy list of attributes as a way to narrow down the available choices, "I think when I started to move away was when I had a list of about 10 things that I wanted. We had 10 things—smaller, liberal arts, in a good city, with connections, and those were the major factors."

Many students cited the availability of certain academic majors as one of the first considerations in their search. Arcilla, a pre-med, Hispanic student, explained her process:

"First of all, what am I going to go study, and since I want to do something in medicine and in science so that was my first step. What do I want to do, what school offers this? That's a little type of, I guess, filter system that I made for myself so that I wouldn't be applying to 32 schools."

Institution size represented another non-negotiable attribute for certain students. Emma, a white engineering major, said, "I wanted a school that wasn't super small, but I didn't want to go to a giant school where I'd just be a number on a list somewhere."

Beyond attributes such as size and geography, personal preferences based on past experiences impact the search process. For example, Cristina, a white female from Nevada, laughed while explaining a key factor in her college search:

"This sounds really lame, but my number one thing I would look at before anything else —I mean, it had to be a university, I had to get a good education, and scholarships were extremely important—but something that was really important to me was the ratio of males to females. In my high school, um, there were no guys... I mean that sounds stupid but it was totally important to me."

The internal search for these stealth applicants began with prominent brands, later balanced by personal analysis of attributes, likes

and dislikes. Information gathered through the narrow lenses of known brands and personal preferences does not provide sufficient data to resolve the problem of college choice. Students then expanded search to include external sources of information.

External Search

In gathering information, students manage and respond to information from many external sources, some more reliable or trustworthy than others. The tools used in external search include technology, interpersonal relationships and experiences. External search tools may include university-generated sources, such as university publications, Web pages, and interaction at college fairs. These stealth applicants focused their external search on information they could gather without direct interaction with the colleges, postponing direct contact until after application.

Technology

In the college search process, the use of search engines followed by visits to institutional Web sites frequently framed students' searches. According to Cristina and many other students, using the Web to gather information is "obvious." While most students used independent Web pages such as Google for general search, they quickly navigated to the university's Web page for more specific information. The use of technology expands the college search geographically and aids in the college search process by providing multiple resources to resolve questions about college attributes. Prospective students gather information on colleges without ever directly contacting the institution. Like many stealth applicants, Connie, an African-American theatre major, describes her college search as "mostly Internet. Internet for everything." Online research is "easy," but also limits the development of the personal relationships that students purport to value in the search process.

Experiences

Some stealth applicants have prior personal experiences with colleges. The interviewees chose not to officially visit PDU prior to applying, yet had some exposure to campus for non-admission programs or visited other universities. Campus visits have long been a central element in college search. Many high schools now offer college trips for students to expose them to college campuses, both as a motivation and as a way to begin identifying preferred attributes. Many students interviewed visited colleges before applying and were visible prospects at some institutions while operating as stealth applicants at PDU. Heidi took two college trips, "Junior and senior year we take a fall trip up to colleges... and that really gives us a lot to think about." Visiting campuses helps students visualize their future at that college. The power of the visit has attained near mythical status. Students believe they will "just know" when they

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arrive on the right campus, as Tyler, a former high school athlete from Indiana, recounted with some skepticism:

"Everybody who'd gone to college that I knew said you will know when you step on that campus, and you just feel it, and I was always like 'how do you feel it? That doesn't make any sense.' I'm probably like one of those analytical people... And then I come here and there it is, this is where I'm supposed to be."

Experiential search includes activities that mimic product use, such as class visits or staying overnight in a residence hall. This differs from a campus tour, as experiential search focuses on resolving questions of fit. Students quickly differentiated between official and unofficial visit experiences. Alastair clarified this distinction, at the same time highlighting the oft-mentioned undercurrent of mistrust toward the official visit:

"If you're coming here and you're going to be involved in a studentrun or a school-run event, or if you're coming to stay with friend and really get the true taste of it. I kind of had both, because I have a friend who goes here, he's a junior. And so I stayed with him for a couple days."

Melissa, an advertising major from Louisiana, said that "staying overnight with a student" presented the best opportunity to experience a college, while Lewis recommended meeting with students who you already know to "get their perspectives. Meeting with real people and going to the campus as much as possible was in my opinion the most valuable information."

Interpersonal Search

Just as students invested widely varying amounts of time in search, they also structured their search processes differently based in part on their access to external and interpersonal resources. Family members supported their searches, within the limits of their experiences and abilities. Parental influence often intersected with financial issues, either as parents served as financial advisors or as they limited the consideration of schools based on cost. Lewis' family knew he would receive merit scholarship money, but were also clear in explaining what they could afford to contribute to his education:

"There was also the family influence just of my parents saying, look, this is financially what we can do. And my Dad especially was big on 'it would be great if you could go to a school where there's a full ride."

Friends impact the college search by recommending schools for consideration and giving emotional support and encouragement during the application and decision process. Paola, a Hispanic engineering major, said "My friends and I would just talk about what they were majoring in and what they were interested in, and pretty much I got the information from them on what they found." Older, college-enrolled friends provide an insider's perspective on the application process and on their school. Steven, who wanted to be sure he attended a school that would be academically rigorous but also a place where he would have a good time, contacted a former student from his high school:

"I had a friend who is now here, and I played on the hockey team with him when we were in high school, and I had talked to him about it and he said it was really challenging, it was really worthwhile, he was a better student because of it. That was one thing that helped me get an idea of what kind of school PDU is like."

Stealth applicants extensively use this interpersonal tool in gathering information about colleges during experiential and interpersonal search. Several set up their own overnight visits and stayed in an on-campus residence hall with an older graduate of their high school to have the "student experience."

Independent Search

Independent search refers to information gathered through sources of information outside of the control of the institution, such as non-university Web pages, ranking guides, books, and other media. Technology holds a significant role in independent search. While members of a generation perceived as overly technology-focused, a surprising number of students interviewed included books in their research. A Hispanic male, Moises, typified this sentiment saying, "I read a lot. I read a lot of books, like all the college books." Some books provided comprehensive overviews of universities for students, with information on match as well as on fit by combining statistical data and student summaries. Jessica, white engineering major from Colorado, relied on these publications:

"We had one book that was absolutely fabulous. It has every... it was the top 500 schools or something like that. And then it had one page that had all the statistics and all of the things the school would present to you to say, 'Here, come to my school.' And then it had a side that was student's perspective of that school. So they talked about the campus environment, the people who went there, that sort of thing."

Students demonstrated mixed feelings about ranking publications. While several mentioned their search for well-known schools with good reputations and name recognition, skepticism existed about the validity of rankings. Lewis described the types of publications he used in his college search:

"Lists, sources of rankings, college rankings are good in my opinion for a general idea of how colleges are but there is only so much those can do. I mean when you start nitpicking between some that are, five or 10 spaces apart, that doesn't necessarily mean anything at all. Colleges can buy those rankings or can do all sorts of things to get those rankings but they will give you an idea of where those are at academically."

Many students characterized the university's outreach to them in purely marketing terms. Kofi described university publications as "where they try to sell it with all the fancy pictures with models that aren't actually students." An agenda drives admission counselors, he suggests, "they're trying to sell it to me. I mean there are strings attached when you ask a college. They're trying their hardest to make their school look good." Steven further explains:

"Every college is going to say that they're the best, and they have the best teachers, and stuff like that... you know that all they're going to do is talk up their school and they're going to downplay anything that's negative."

While students showed comfort in using non-university Web sites, not all of them trust the information on these Web pages. Personal experiences often provided authentic and unscripted trustworthy information. "The most trustworthy source is found in firsthand experience going to visit colleges and talking to people who had been at the college," Lewis contended. Students question the authenticity of official university events; their trusted search tools include books, non-university Web sites, and interpersonal relationships.

Implications

Stealth applicants use familiar tools and techniques in their search for colleges. Each student articulated a search process that included internal analysis of preferred attributes and external search for schools perceived to match those attributes. In this way, stealth applicants search for colleges in a consumer behavior based framework, much the same way that visible prospects or more traditional applicants search. Stealth applicants visit colleges, but often through unofficial or untracked visits, expressing a preference for more authentic experiences when visiting schools, seeking out friends as sources of the "real" experience of college and delaying more official admission visits until the spring, after admission to the university.

In addition to entering the application stage without previous documented interaction with the institution, stealth applicants fail to move sequentially from internal to external search as they progress through the consumer behavior search models. These students do not follow identical patterns of information gathering, many re-sequenced the traditional consumer behavior model in similar ways during external search, and some commonalities emerged when examining the traditional search versus the experience of stealth applicants:

- Traditional applicants use interpersonal, media, external, and retailer search to gather information prior to applying, while stealth applicants postpone retailer and visible media search until after they have applied and, in many instances, received an offer of admission. Stealth applicants may interview after applying and will likely visit after admission. Instead of progressing in a sequential manner, they swirl the categories of prospective student/information seeker and applicant.
- · Traditional models of consumer behavior demonstrate that consumers utilize media and marketing early in the search process, and reserve interpersonal search for the end of the process (Hoyer and MacInnis 2007). Stealth applicants invert this sequence by deferring university controlled media search, and using interpersonal search throughout the external search process.
- Consistent with prior research (Abrahamson and Farrell 2009), interpersonal influences such as advice from parents have the greatest impact early and late in the process, at the point of building the list of schools to consider and at the final decision.
- Unique to stealth applicants, retailer contact and experiential search occur late in the search process, often after application and admission.

Stealth applicants apply the tools of consumer search, but with increased emphasis on search tools not tracked by admission offices, relying on research methods that do not require responses or direct interaction. Despite research indicating that millennial students seek personal connections in college search (Lindbeck and Fodrey 2009), the stealth search focuses on anonymous information gathering and seeking answers to specific questions, not on gathering more general information or building relationships through a bi-directional conversation between prospective students and institutions.

The external search of the stealth applicants primarily flowed in one direction—student seeking information—using tools not tracked in most admission processes (Table 2). Admission offices track campus tours and experiential visits, for example, but this system only works when students register for visits with the admission office. The majority of the search tools and methods used by stealth applicants remain invisible to admission offices. Several factors influenced these students when they entered the visible stage of the college search. While technology facilitates anonymous search, financial and psychological factors impact students' search behaviors. The choice to search anonymously illustrates the growing distrust of college marketing. Students perceived official sources as biased, overly positive, unrealistic, and sales-oriented. This generation of savvy consumers understands and questions marketing messages and seeks third party external validation for the marketing messages relentlessly pumped out by colleges and universities. Students cross-check Web pages and search mailings quoting students who "love it here!" by contacting current students to discuss their experiences.

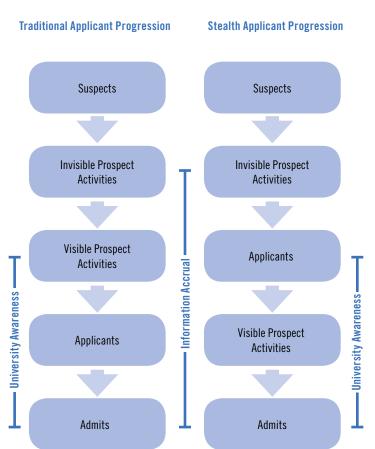
Table 2. Traceability of the external search categories used by stealth applicants in commercial and college search.

External Search Category	Commercial Search Behavior	College Search Behavior	Tracked by PDU	
Retailer Search	Visit or calls to stores	Campus visits	Only if arranged through the admission office	
		Calls to university	No	
Media Search	Advertising, Web and other marketing materials	University Web page	Only if student completes online registration	
		University view book	Only if student returns reply card	
		Other univer- sity publications (such as PSAT search mailings)	Only if student returns reply card	
Interpersonal Search	Advice from friends, relatives, neighbors, coworkers, and/or other consumers	Advice from friends, relatives, teachers, counselors, and current students	No	
Independent Search	Contact with independent sources of information	Guidebooks, ranking publications, Web sites, social networking, etc.	No	
Experiential Search	Product samples, service trials	Class visits, overnight visits in residence halls	Only if arranged through the admission office	
Note: Adapted from Hoyer and MacInnis (2007)				

Existing enrollment models track pre-applicant interaction, including how test scores are sent, participation in on-campus events, and methods of requesting information (Goenner and Pauls 2006) to determine an applicant's interest in the institution. These models prove wholly inadequate for applicants who do not follow these traditional methods of search. The admission funnel, as a sequence of activities, differs for stealth applicants. Considered in stages, traditional college applicants move from suspects, to prospects, to applicants as shown in Figure 2. Stealth applicants move directly from suspects to applicants, bypassing a period of recorded interaction with the institution.

Activities in the prospect stage normally combine interactions which are visible and invisible, such as attending college fairs, receiving and replying to mailings, visiting campus, and interacting with various college representatives. In considering the activities associated with these stages, the findings suggest an oversimplification of the traditional admission funnel. A revised roadmap divides the prospect stage into visible and invisible actions (Figure 2).

Figure 2. Traditional and stealth movement from invisible prospect through admission.



While labeled stealth applicants, these students might more accurately be labeled stealth prospects.

Each progressive step in the traditional admission process reflects increasing contact between the student and institution, often offering benefits to students who are more visibly engaged. Stealth applicants pick and choose among these search activities, and in the ways they search they exclude those actions that would make them visible to the institution.

Conclusion

While enrollment management models used for 30 years illustrate a sequence of interactions that anticipate student responses to increasingly detailed mailings, stealth applicants do not respond to mailings, fill out information cards, or register online. When stealth applicants receive a mailing or email that generates interest, they do not use the reply card to request more information. Instead, they utilize Google, the college's Web page, or other collegerelated sites to learn more about the institution. While consumers move sequentially from internal search to external search through

the traditional consumer behavior model, stealth applicants swirl through the search process, alternating and overlapping internal and external search and the roles of college search novice and guide. While labeled stealth applicants, these students might more accurately be labeled stealth prospects. Researchers and admission professions should continue to assess the role and behaviors of this population to improve the efficacy of enrollment modeling.



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