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# Mapping Student Days: Collaborative Ethnography and the Student Experience

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## Mapping Student Days: Collaborative Ethnography and the Student Experience

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### Abstract

Research on students' educational experiences demonstrates the importance of a holistic understanding of the complexity of students' lives in developing library programs, services, and resources that effectively address undergraduate needs. The "A Day in the Life" (ADITL) Project investigated a typical day for over 200 students at eight diverse higher education institutions in the US. Examining the local and individual expressions of student taskscape – the ensemble of interrelated social activities across time and space – placed each student's relationship to their library in a larger description of their academic and personal lives. By exploring the whole student experience, this multi-site ethnographic study mapped out a more complete, complex, and diverse cartography of college students' lives and the library's place in it.

Keywords: academic libraries, higher education, ethnography, user experience



## Introduction

Understanding the complexity of students' lives is key to developing library programs, services, and resources that effectively address undergraduate needs. In particular, librarians are interested in how users experience the library in the context of their lives.

To broaden our understanding of students' experiences, the "A Day in the Life" (ADITL) Project captured information about a day in the life of 205 students at eight institutions across the variety of higher education experiences of students in the United States. We conducted brief surveys sent by cellphone text messages throughout a single day that asked students where they were, what they were doing, and how they felt. We then mapped those moments to see what paths students took during their day, and used these maps in interviews with them in order to understand the choices they made and the challenges they faced as students moving through spaces and locations while engaging with a variety of tasks. In short, we endeavored to capture and analyze student taskscapes.

Taskscape is a concept first articulated by social anthropologist Tim Ingold to describe the way humans interact with landscapes over time as they go through their day, a "pattern of dwelling activities" that helps us understand landscapes as they are experienced by humans.<sup>1</sup> It is a way of mapping the lived experience of individuals to geospatial settings, in other words, movements through daily life, that informs our understanding of both. Importantly, the taskscape model posits that tasks and activities cannot be analyzed in isolation, but instead must be approached holistically in connection with other activities that are interwoven across different times and spaces.<sup>2</sup>

In examining student taskscapes, we have found similarities and differences in experience across

different kinds of campuses in terms of where students prefer to do their academic work and why. By exploring how the library figures in the lives of these students, we are better positioned to consider how best to serve them in ways that respond to their actual needs, not simply our best guesses based on our view from the library.

## Literature Review: Mapping the Student Experience

While ethnographic studies and methodologies have been used to explore a variety of areas<sup>3</sup> within Library and Information Science research for decades,<sup>4</sup> the methodology came into new prominence with the University of Rochester's influential Undergraduate Research Project.<sup>5</sup> This project sought to understand what students do when they write research papers, focusing on how undergraduates use library space as well as how they engage with technology and do their academic work. Among other methods, this study used mapping diaries, in which students marked on a map where they went throughout one day.

Other studies have also used mapping as a research strategy. Drawing from the University of Rochester study, Fresno State University sent students out with blank maps of campus, disposable cameras, and notebooks and asked them to fill in the map with their movements as well as take pictures of significant things.<sup>6</sup> In their analysis of the Fresno State data, Delcore, Mulooly, and Scroggins introduced the concept of taskscape<sup>7</sup> as a way to understand the interwoven social contexts, spaces, locations, and temporal cycles within which students complete their academic work.<sup>8</sup> The University of Connecticut Library, in their Assessment 360 project, added multimedia to mapping, asking students to film their workspace while they explained why they liked and used it.<sup>9</sup> To better understand student use of their library, Drexel University asked students to annotate maps of the library with their perceptions about each floor.<sup>10</sup>



In a collaborative project, the University of North Carolina at Charlotte, University College, London, and the Institute of Education used mapping to demonstrate how the digital and non-digital combined in students' lives.<sup>11</sup> At the University of Huddersfield, international students were given a few minutes to draw a map of where they went to study, on or off-campus, using different colored pens for order of locations and duration.<sup>12</sup> The University of Chicago asked medical students to create maps of their day, including their clinical activities to understand how clinicians discover and use information.<sup>13</sup>

Most relevant to the ADITL Project are a handful of large, multi-site studies. The Ethnographic Research in Illinois Academic Libraries (ERIAL) project studied the research processes of undergraduates at five Illinois universities from 2008 to 2010.<sup>14</sup> As part of a suite of ethnographic methods,<sup>15</sup> the ERIAL Project employed mapping diaries similar to the University of Rochester and Fresno State studies, and developed a cognitive mapping approach that draws on sketch-map methods used in urban planning<sup>16</sup> that have been successfully used to investigate many academic spaces such as libraries<sup>17</sup> and learning environments.<sup>18</sup> Along with findings illustrating that students did not fully understand the services and resources available in academic libraries, that they sought help from everyone but librarians, and that they did not understand the difference between library databases and Google, the ERIAL project demonstrated the utility of comparative ethnographic studies of multiple institutions, as well as how spatial data can be used to understand differences in students' taskscapes and educational experience among varying institutional types.<sup>19</sup>

Smale and Regalado explored undergraduates' use of information, space, and technology at six

colleges in the City University of New York (CUNY) system from 2009 to 2011 in their Undergraduate Scholarly Habits Ethnography Project.<sup>20</sup> Addressing community college students specifically, a three-year (2013-2016) study spanned three campuses of Montgomery College, the community college of Montgomery County, Maryland.<sup>21</sup> Both the CUNY and Montgomery College research primarily studied commuter students and revealed similarities regarding this population, which included both community college and baccalaureate students. For example, students utilized commute time to do their homework, scheduled campus visits so as not to lose more time than necessary commuting, and desired quiet space when on campus for uninterrupted work.<sup>22</sup>

### Research Context and Methods

The ADITL Project was designed as a collaborative multi-site ethnographic exploration of students' space use practices, with the goal of creating a dataset that could be rigorously compared across institutions. Eight universities were chosen to participate based on their libraries' capacity and experience in undertaking ethnographic research and with the goal of representing a cross-section of the types of higher education institutions and diversity of the student body in the United States: Indiana University Bloomington (IUB), Indiana University Purdue University Indianapolis (IUPUI), Gustavus Adolphus College (GAC), University of Colorado Boulder (UCB), University of North Carolina Charlotte (UNCC), and three colleges in the City University of New York: Borough of Manhattan Community College (CUNY BMCC), Brooklyn College (CUNY BC), and New York City College of Technology (CUNY CT) (see Table 1).



**Table 1. Characteristics of ADITL Participating Universities**

| University | Participants | Student Population | Carnegie Classification                                 | Size & Setting                             |
|------------|--------------|--------------------|---|--|
| CUNY BC    | 18           | 17,390             | Master's Colleges & Universities:<br>Larger Programs    | Four-year, large, primarily nonresidential |
| CUNY BMCC  | 20           | 26,606             | Associate's Colleges:<br>High Transfer-High Traditional | Two-year, very large, non-residential      |
| CUNY CT    | 20           | 15,579             | Master's Colleges & Universities:<br>Larger Programs    | Four-year, large, nonresidential           |
| GAC        | 19           | 2,457              | Baccalaureate Colleges:<br>Arts & Sciences Focus        | Four-year, small, highly residential       |
| IUB        | 56           | 46,416             | Doctoral Universities:<br>Highest Research Activity     | Four-year, large, primarily residential    |
| IUPUI      | 31           | 30,690             | Doctoral Universities:<br>Higher Research Activity      | Four-year, large, primarily nonresidential |
| UCB        | 23           | 32,432             | Doctoral Universities:<br>Highest Research Activity     | Four-year, large, primarily residential    |
| UNCC       | 18           | 27,238             | Doctoral Universities:<br>Higher Research Activity      | Four-year, large, primarily nonresidential |

The colleges and universities in our study range in educational focus from a community college, to a highly-selective small liberal arts college, to a large technical college, to medium and large research universities (see Table 2). Included among these universities are institutions with high ethnic diversity (the CUNY system), and institutions that serve large numbers of students who are over 24 years old or attend school part-time (CUNY, IUPUI). Several of these universities enroll large numbers of first generation students, who comprise at least a third of undergraduates at IUPUI, UNCC, and CUNY. Finally, the CUNY system serves many students who have high levels of financial need, with 38.5% of CUNY students reporting an annual household income of less than \$20,000. While these universities span a wide range of institutional types, they are not fully representative of the institutional diversity in the United States since the study was not able to include examples such as private doctoral universities, community colleges not located in urban areas, or for-profit institutions.

All of the participating universities used a common mixed-method research protocol that collected data in two phases. In the first phase, student participants were periodically sent a text message-based survey during the course of an academic day in which they attended classes. In the second phase, students participated in a qualitative ethnographic interview based on the information they provided in the surveys.

Across the eight institutions, 205 students participated in the ADITL Project during the Fall 2015 semester (see Table 1, above). Students were recruited in a number of ways: via an email invitation using a randomly selected list generated from student enrollment records (IUB, IUPUI); by hanging flyers throughout each of the three campuses (CUNY); through flyers and handouts in five library locations across campus and posts on an electronic bulletin site which announces

research studies events (UCB); through a combination of fliers in the library, emails to students enrolled in large general education courses, and library social media posts (primarily Facebook) (UNCC); and by using posters in academic buildings and by asking teaching faculty colleagues to announce the study to their classes or advisees (GAC). These efforts produced a participant population representing a wide range of student experiences and life contexts. The majority of the students who participated in our study were “traditional” aged, that is, under 24, working at a job no more than part-time, and enrolled in a full-time course load.

After agreeing to participate, students were asked to provide a mobile telephone number to receive text messages and to choose one of two possible weekdays in October, 2015, to participate in the text message surveys.<sup>23</sup> The text message surveys were based on a modified version of the experience sample method<sup>24</sup> which was developed by psychologists to gather behavior and affective data in real time via short surveys often administered using personal devices such as pagers or cell phones. The ADITL survey protocol sent twelve identical sets of text messages to each participant approximately 75 minutes apart. Each set of texts asked the student to respond to three questions indicating their location, a classification of the activity they were participating in, and how they felt at that time (Appendix A).<sup>25</sup> These sets utilized one open-ended and two multiple-choice questions and were purposefully kept as short as possible in order to maximize participant response. Ambiguities in the responses such as imprecise locations or participation in multiple activities simultaneously were clarified during the debriefing interviews, discussed in detail below.

The 75-minute interval was chosen to ensure that students received surveys during different parts of the hour throughout the day in order to help minimize any potential bias caused by



**Table 2. Demographic Characteristics of Undergraduate Students at ADITL Universities, Fall 2015.**  
 Source: National Center for Education Statistics

|   | CUNY BC | CUNY BMCC | CUNY CT | GAC | IUB | IUPUI | UCB | UNCC |
|---|---------|-----------|---------|-----|-----|-------|-----|------|
| <b>Financial Aid</b>                                    |         |           |         |     |     |       |     |      |
| Undergraduates awarded Pell grants                      | 50%     | 66%       | 55%     | 25% | 16% | 37%   | 17% | 41%  |
| Full-time first-time undergraduates awarded Pell grants | 59%     | 80%       | 75%     | 26% | 18% | 42%   | 16% | 36%  |
| <b>Enrollment</b>                                       |         |           |         |     |     |       |     |      |
| Part Time   | 28%     | 34%       | 38%     | 2%  | 17% | 22%   | 8%  | 13%  |
| Full Time   | 72%     | 66%       | 62%     | 98% | 83% | 78%   | 92% | 87%  |
| <b>Gender</b>   |         |           |         |     |     |       |     |      |
| Women   | 59%     | 58%       | 44%     | 53% | 51% | 56%   | 45% | 48%  |
| Men   | 41%     | 42%       | 56%     | 47% | 49% | 44%   | 55% | 52%  |
| <b>Age</b>  |         |           |         |     |     |       |     |      |
| 18-24   | 67%     | 69%       | 64%     | 98% | 84% | 76%   | 92% | 83%  |
| 25-64   | 26%     | 26%       | 26%     | 0%  | 2%  | 23%   | 6%  | 17%  |
| <b>Ethnicity</b>  |         |           |         |     |     |       |     |      |
| White   | 32%     | 10%       | 12%     | 83% | 67% | 71%   | 71% | 60%  |
| Hispanic/Latino   | 21%     | 44%       | 32%     | 4%  | 5%  | 6%    | 11% | 9%   |
| Black or African American                               | 24%     | 27%       | 30%     | 2%  | 4%  | 10%   | 2%  | 17%  |
| Asian   | 18%     | 12%       | 20%     | 4%  | 4%  | 4%    | 5%  | 6%   |
| Nonresident Alien                                       | 4%      | 6%        | 5%      | 4%  | 10% | 4%    | 6%  | 2%   |
| Other/Not Reported                                      | 2%      | 1%        | 1%      | 3%  | 10% | 5%    | 6%  | 7%   |
| <b>Completion</b>                                       |         |           |         |     |     |       |     |      |
| Graduation rate   | 54%     | 18%       | 16%     | 82% | 77% | 44%   | 71% | 53%  |



scheduling effects; for example, most universities schedule courses to begin and end at consistent times in an hour, such as starting on the hour and ending at 10 minutes to the hour. Messages were sent to students at all eight participating universities on the same days and at the same times (adjusted for time zone differences) to ensure comparability across the research locations, beginning at 9:10am and ending at 10:55pm. Students were instructed not to respond during a class or if it was unsafe to do so, for example, while driving. In these circumstances students were asked to respond once they were next available and to provide information about what they were doing when the message arrived. In total, 2,210 responses were collected, an average of 10.8 responses per participant, or about 90% of possible responses.

After the survey was completed, the research team geocoded each reported location and used these coordinates to create a map of each student's day (Figure 1). This map was then used as an elicitation guide in a semi-structured debriefing interview with each student, utilizing open-ended questions to explore students' daily experience of spaces and places and the practices they used to complete their academic assignments, research, and other day-to-day work (Appendix B). The research team transcribed and thematically coded these interviews using Dedoose qualitative data analysis (QDA) software; using a simplified version of grounded theory methodology,<sup>26</sup> emergent themes were identified inductively from open coding of the interview texts by members of the research team.

This mixed-methods approach thus produced three types of data: quantitative survey data, spatial geographic data, and qualitative interview data. Analyzed together, these data triangulated patterns in students' taskscapes stemming from their experience of varying life contexts and university settings.

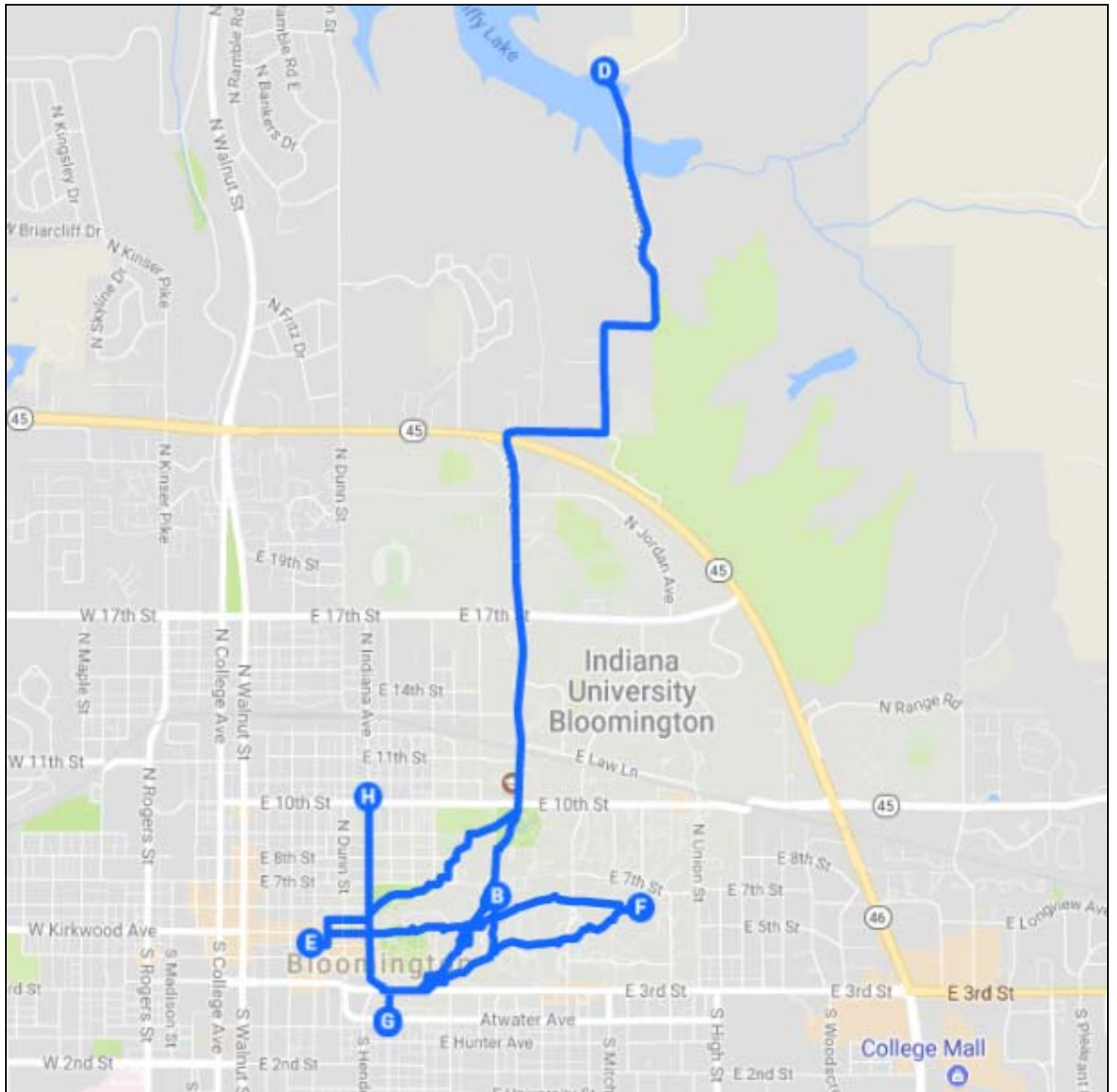
### Quantitative Findings: Spatial Patterns and Campus Types

Analysis of the geographic mapping data revealed strong patterns in students' spatial experiences among the universities. These patterns suggest that a university's location and setting had a much stronger effect on students' educational taskscapes than the type or classification of the institution. Within the eight universities, three groupings emerged: residential campuses (IUB, GAC, UCB), non-residential campuses in semi-urban locations (IUPUI, UNCC), and non-residential campuses in highly urban locations (CUNY BC, CUNY CT, CUNY BMCC). Daily travel times and distances appeared to be the principal determining factor for these groups. Students attending institutions within each group exhibited similar total travel distances, commuting times, and average distances between locations among their constituent universities (see Table 3 and Figure 2).

Travel time and distance figures suggest that the necessity of the commute to campus structured students' spatial experiences in different ways. Nevertheless, students from all eight universities reported broadly similar relative distributions of both educational and non-education activities (Figure 3). The results suggest that the tasks of student life were quite similar among students at all types of universities, but where and how these tasks got accomplished and the qualitative experience of these tasks varied, and were affected by external spatial constraints as well as academic, economic, and social obligations. These patterns also indicated the importance of developing library service models that meet student needs in ways that fit within these broader experiences and contexts.



Figure 1. An Example Participant Map Created with Google Maps



**Table 3. Distances Traveled (in meters) and Commute Times Reported (in minutes) by Study Participants (residential campuses highlighted in yellow, non-residential campuses in semi-urban locations in blue, and non-residential campuses in urban locations in green).** Median averages are used for total distance traveled and reported commute times in order to minimize the effect of outlier values.

| University | Median Distance Traveled (m) | Median Reported Commute Time (min) |
|------------|------------------------------|------------------------------------|
| IUB        | 6,769                        | 10                                 |
| UBC        | 8,001                        | 10                                 |
| GAC        | 5,959                        | 10                                 |
| IUPUI      | 10,878                       | 25                                 |
| UNCC       | 24,993                       | 15                                 |
| CUNY BC    | 15,293                       | 35                                 |
| CUNY CT    | 16,407                       | 60                                 |
| CUNY BMCC  | 23,541                       | 50                                 |

Figure 2. Box and Whisker Plots Showing Total Distance Traveled by Study Participants.<sup>27</sup>

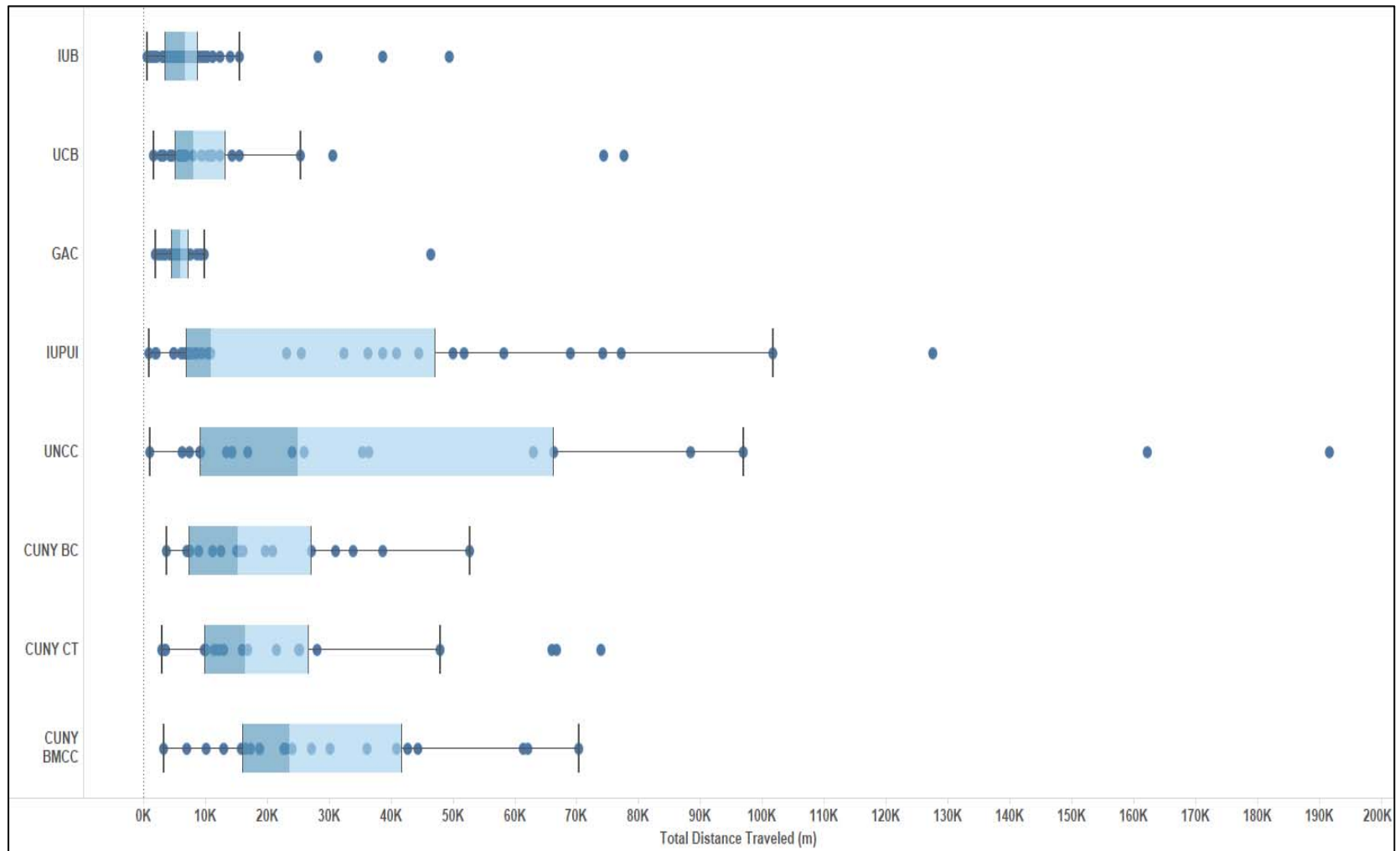
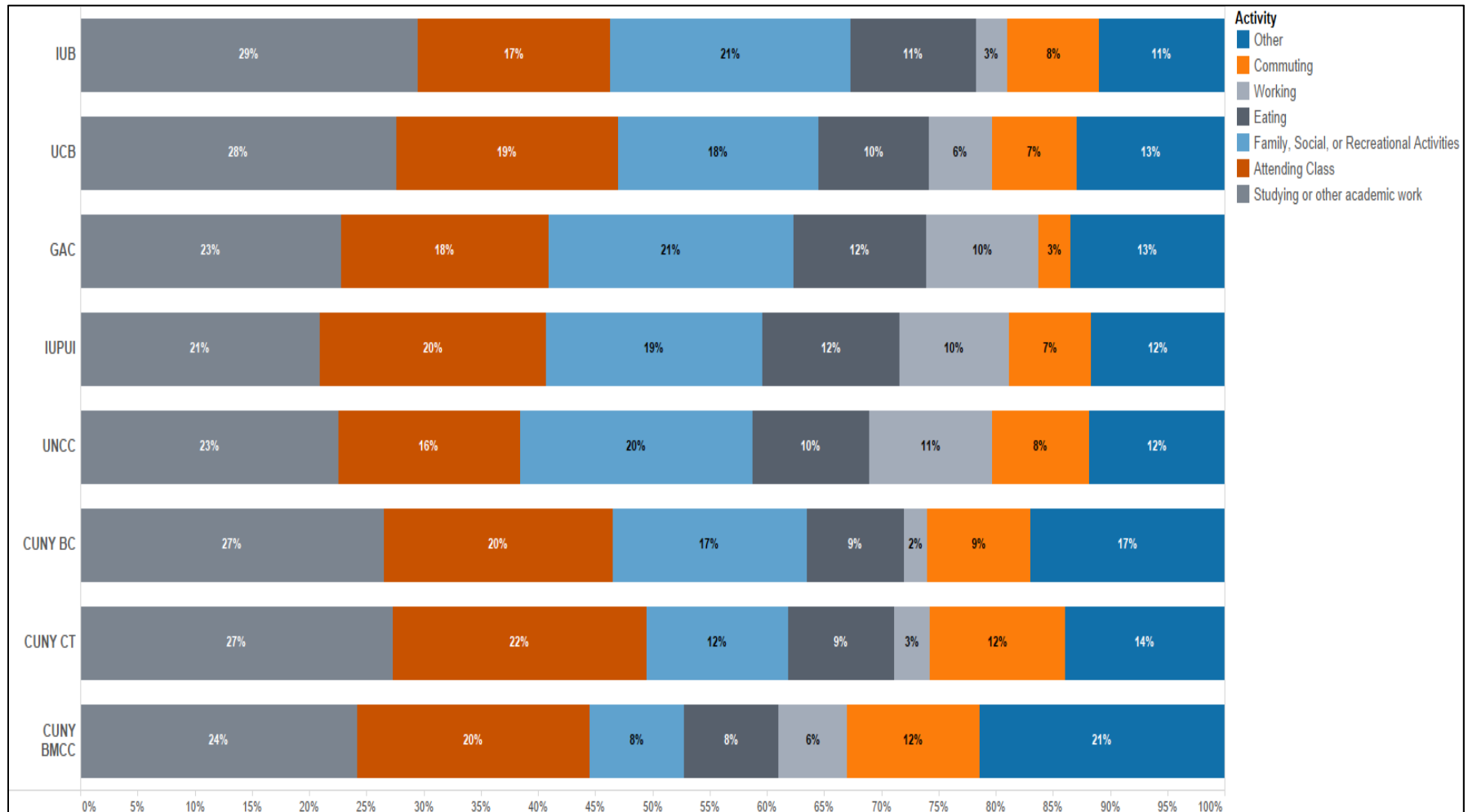


Figure 3. Distribution of Activities Reported by Study Participants



### Qualitative Analysis: Locations, Studying, and Time

While we observed patterns in the quantitative data gathered during student surveys that suggest three groupings for institutions in our study – residential, non-residential semi-urban, and urban commuter – analysis of our interview data added nuance that complicates our understanding of the student taskscape at each of the three types of institutions. Themes that emerged from our qualitative data centered on where students go during their school days, what they do, and how they spend their time, either by choice or constraint. We found that the relationship between campus and residence was the strongest feature of students' taskscapes.

#### Locations

In their text responses, students told us which locations they found themselves in during the day: primarily their home or dorm, on the commute, and locations on campus and in the library in particular. In subsequent interviews, we learned more about the factors that influenced their choices about where they spent their time. While clearly students were required to go to locations such as class and home, there were many moments in their day when they could make choices about where to go. When examining the student responses, two major themes emerged related to the relative convenience and quality of locations. These two themes, especially convenience, were so pervasive that, while local settings did impact student choices, we did not find any outstanding differences among the experiences of students at different types of universities. Rather, experiences at home<sup>28</sup> and on campus were remarkably consistent across the different university types.

Students across institutions in the study lived in a variety of settings including dorms and off-campus, variously with roommates, with their parents or extended families, or with families of

their own. Overall, most students indicated they were happiest at home. Many referenced the relief they felt when they got back home, like a CUNY BMCC student who said, "I was very happy because I was finally home, I was so happy!"

At the same time, student responses revealed a tension between the positive and negative qualities of home. On the one hand, students preferred home because of comfort and convenient access to their things, including favorite study spots, materials to support their studies such as books, pens, and paper, easy access to heavy textbooks, and readily available food. For example, a GAC student summed up many students' preferences for home:

"I feel like I can concentrate more [at home], because I feel like the library is so, too quiet for me. So I like to play just a little bit of music, have a little snack, and do homework at the same time."

Conversely, we heard that working at home could be difficult due to distractions from family, roommates, and neighbors, and even the comforts of home themselves. This CUNY BMCC student acknowledged the tension:

[I study at home] "because um, well I have, like, a lot of homework from every class I have, and it's a little heavy to carry all the books I need to the library. But sometimes I do go to the library to study so I can get some peace and quiet because my little brother, he's a little too much. He's a little over-excited, he's always yelling, he's always screaming, and running around and I can't really concentrate, so I go to the library instead."

The theme of convenience emerged strongly in student reports of their campus locations, and was closely tied to gaps in their class schedules and moving between locations and activities. It





was in these moments that they made choices about how to spend gap time based on the relative convenience of locations, often in terms of the proximity of the location to their next required location and how much time they had to spare. While each campus provided different options, student experiences were quite similar; students most often chose locations with access to the next class, food, or a place to study.

Two factors in particular influenced students' choices of locations: time constraints and minimizing movement around campus. They were likely to remain in a location even if it was not their most desirable, to avoid having to move around too much, as students from GAC and CUNY BMCC noted.

"I only have a short period of time to do my homework then I won't bother to drive myself all the way to the library."

"Sometimes I have two of my class[es] like in the same building, like maybe a three hour break, I don't want to walk back to here [library] and then walk back there to take the class, I just prefer to stay in that building until my next class."

The relative perceived quality of locations was also another important factor for students. In particular, location quality was closely related to student study preferences, elaborated more fully below, and revolves around quiet (or lack of quiet), privacy (or social activity), furniture preference, and light. It also hinges on access to outlets, wifi, and computers.

Of all campus locations, overall students experienced the library as a positive location that allowed them to engage with schoolwork. For most, including these students from UCB and CUNY BMCC, the library environment was motivating.

"Yeah it just makes it easier to, you know, sit there and zone in and be like all right I'm

here, so I might as well do my work now and get it over with."

"I'm more efficient when I'm in a school setting, like, when I hear the word library, I think of work."

However, some students experienced the reverse and felt pressured by the studious atmosphere. As this GAC student commented: "When I come to the library, everyone is, like, so focused and it stresses me out to be more focused."

Overall, for residential students where locations were relatively close together, the quality of a location mattered most. For commuter students, location choice was influenced by the distance between campus and home, with convenience favoring staying on campus in between scheduled activities.

### Studying

Along with locations, we also considered what activities students were engaged in when they responded to texts. Studying was the most common activity. There were few differences across the three institution types in terms of students' study preferences related to presence of other people, distractions, noise level, and appropriate space to conduct academic work. Preference for home or library was closely associated with distance to home location, availability of dedicated study space at home, and the presence of roommates or family members.

Students studied in diverse locations, including the library, home, various campus locations, while on public transportation, or in cafés or fast food restaurants. In addition to convenience, students preferred spaces that encouraged focus and getting things done. This was most often the library, as one IUB student noted. "It feels like a live learning environment rather than me just studying." Often the library was seen as a place to complete daunting tasks. For instance, one



GAC student usually studied elsewhere, but would go to the library to “pound something out.”

For others, the location for focused work was their home or dorm room. A CUNY BC student who was living at home with parents had a space there that was habitual.

“I think I’m just so used to it, from elementary school, I had that one desk, my mom forced me to sit down and study there . . . so when I’m at home, it’s like, time to study now, that desk reminds me . . .”

Those students who identified home as their preferred study location often had access to a dedicated study space that promoted focused work, contained their supplies, and was separate from the distractions of family or roommates.

Students expressed varying preferences for the presence of others when studying. Some students sought out solitary spaces, whether at home or on campus, while a larger number preferred having other students around them to stay focused. An IUPUI student commented that “studying here [in the library] I’m usually with a friend, so, it’s easier to stay on task.” A CUNY BMCC student had a similar experience in a café stating, “if I go to café it’s kind of nicer environment and I get some nice music and people are doing something, so I feel pressure, I have to do something as well.” Some students also talked about choosing study spaces where they were with roommates, classmates, friends, peers, and mentors who could help if they had questions while studying, while others wanted company, but without interruption.

Some students avoided distraction by seeking spaces that were more private or wearing noise-canceling headphones or listening to music, as a CUNY BC student explained: “as long as there’s

some kind of music to distract me from the outside world, I’ll be able to study.” One UCB student chose to study in the library stacks, because it was a space with “zero distraction” and “everyone’s off, it’s just me and my computer and the paper and notes.” We found student preferences for sound while studying fell on a continuum (see Figure 4).

Most students preferred sound levels along the middle three options, with outliers preferring complete silence or a noisier level of action. A GAC student noted that they “like the noise in the background, that way I’m not like in prison or something.” An IUB student who preferred some sound noted that “quiet is a bit eerie” and it “makes me sleepy.” Crucially, finding the right balance was often difficult. Where library spaces were not large enough or constructed in such a manner to allow for separate zones, students expressed frustrations that noise levels were not what they desired and that others were not following what they saw as established norms.

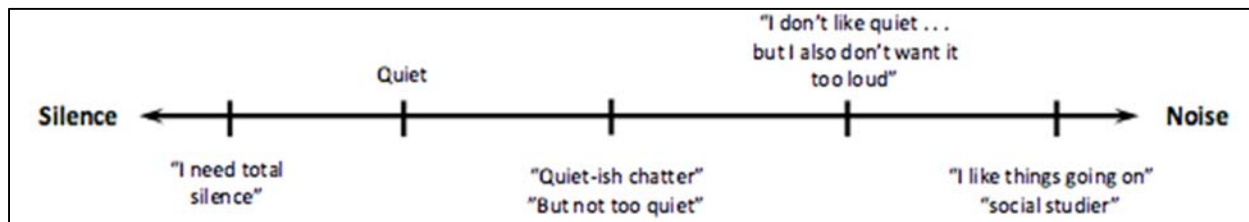
Students had other preferences as well. In terms of work space, commuter students largely preferred cubicles or carrels; as a UNCC student commented, they provided privacy and “space but not too much.” On the other hand, residential students often preferred tables on which to spread out their materials. Outlets and wifi were predictably in demand and many students also sought study locations where they could eat meals or snacks. A UCB student said, “I usually end up studying while I’m eating, double dipping.”

Crowding, particularly during finals or other busy parts of the semester, often led students to locate other study spaces on campus or to make do with a less than ideal space. Students at residential campuses, more than those at other institutions, mentioned studying in classrooms, as described by an IUB student.





Figure 4. Continuum of Preferred Noise Levels for Studying



“We actually will go to classrooms . . . Or lecture halls. When it’s late, like no one’s having a lecture hall at like 7 p.m. . . . so we’ll just take over, and if we really want we’ll play light music. And then, you know, being proactive and using the chalkboards, because in our classes they have, like, three chalkboards and you can switch them back and forth. Or using the whiteboard.”

Other students sought out common spaces around campus to serve as a backup study location when they could not find space in the library.

For all of the often imperfect choices students had for study spaces that provided convenience and match their preferences, most students were creative and flexible in making it all work for them, as this IUB student describes:

“Well, I, usually in a day I like some variety with studying, so, like, I’ll go to SOMA [coffee house] and there’ll be like a lot of people in there, but I’ll just try to get in my own zone with . . . with music and I’ll have a drink or something. And then, if I’m going to the Union computer lab, that’s usually because I need a, like a nicer desktop computer. And if I’m at home, it’s just because I need to like be alone and like really just focus and get down to it.”

The challenge faced by some of our libraries is accommodating as many of these student preferences as we can with limited space and budgets, while preserving the “live learning environment” that so many students seek out.

#### Time Allocation

Time was a persistent theme across student responses, considering how students fit their academic activities – including choice of locations and studying – into the rest of their busy lives. Student responses to our text message survey allowed us to consider time breakdown between time spent in classes, studying, between classes, at work, commuting, participating in extracurricular activities, and with family members or as caregivers. Many students' days differed within a week, for example, students might have classes only on Mondays, Wednesdays, and Fridays, and how they spent their time on Tuesdays and Thursdays might be very different. While we observed similarities in the ways that students allocated time within the three types of institutions in our study, we also encountered some unexpected differences across the eight institutions.

The three campuses in our study that predominantly enroll residential undergraduates were broadly similar with respect to how students spend their time. Most students lived within the

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immediate vicinity of the institution, and commutes tended to be short for both residential and off-campus students. (Notably, because of the size and layout of the campus and surrounding Boulder neighborhoods, UCB students who lived off-campus often were closer to their classes and other academic commitments than their fellow students who lived in residence halls.) At GAC most students walked to and around campus, while at IUB and CUB walking and taking the bus – either university-provided or regional buses – were the most common modes of commuting, followed by biking and driving. Finding a parking space was not expressed as a concern for drivers at IUB or UCB. Many students at these campuses worked at part-time jobs. At GAC those jobs tended to be on campus, while at IUB and CUB they mostly were off-campus. Not surprisingly, campus-based extracurricular activities like clubs, sports, and volunteer work were more commonly reported by the predominantly residential students than for the other colleges in our study.

As a small and almost exclusively residential college, the experiences of GAC students align closely with what news and education media often depict as a “traditional” college experience: heavily focused on campus and their role as a college student. Nevertheless, students at GAC, IUB, and UCB all had busy days devoted to school-related activities and experiences. Students who lived on campus often went back to their dorms several times during a typical day, while those who lived off-campus were more likely to stay on campus until their last commitment ended.

All of the students we met at the three urban CUNY colleges lived off-campus, most often with family including parents, grandparents, siblings, and other relatives. Overall, their commutes were longest of any of the institutions in our study, and typically they commuted using New York City’s public transit system of subways and buses. Many CUNY students used

multiple forms of public transit to get to campus, and some wove commutes to work or to drop off children at school within their days as well. CUNY students tried to take advantage of their commuting time for studying, catching up on sleep, or leisure reading, but sometimes crowding thwarted their efforts. Some of the CUNY students we met commuted to campus to study even on days when they didn’t have classes, as they were unable to study effectively at home or in other off-campus locations.

Half of the CUNY students we interviewed worked, primarily holding part-time off-campus jobs. Some students were able to use time at work for studying, depending on job responsibilities and sometimes access to technology. CUNY students spoke less about their involvement in campus-based extracurricular activities than students at the other colleges, though they referred to volunteer work, church involvement, and other activities. Many of the students we spoke with appeared to treat school like a job, in that they sought to finish all of their work on campus rather than leave it for evenings at home, while others worked at home in the evenings either by preference or necessity. For the urban commuter students we spoke with, school was often one more commitment to be fit into their busy days full of other, off-campus commitments to family, work, and community.

Students from the two primarily non-residential universities spent their time in broadly similar ways. Most of the students interviewed at IUPUI and UNCC lived off-campus, some at quite a distance, and the commute was much more prominent in these students’ experiences. Most of these students drove, and parking availability and affordability shaped their days, lengthening their commute and influencing whether they stayed on campus rather than study at home between classes. The few students who lived near campus walked, cycled, or rode a bus to campus. While the commutes for IUPUI and UNCC students were generally shorter than for CUNY



students, most students drove to campus so were largely unable to multitask and use the commute for schoolwork or other activities.

The experiences of commuter students at IUPUI and UNCC are broadly similar to those of the CUNY students in that they often actively switched between their multiple life roles throughout a typical day. Most of the students we interviewed at IUPUI and UNCC were working part-time while attending school, primarily at jobs off-campus. Many participated in extracurricular activities, though fewer than at the residential institutions and more likely activities unaffiliated with their campus. Several UNCC students reported they do not have time for extracurricular activities.

Among our study participants across all eight institutions, we found that students who lived on (or close to) campus and spent less time commuting were more likely to use their home as a study space during the day. As might be expected, the commute played a large role in students' days for those who lived at a non-walkable distance from campus. Urban commuter students who relied on public transportation used the commute for schoolwork when they could, though our commuters in suburban or smaller urban locations predominantly drove, which reduced their opportunities for multitasking. However, we were interested to learn that those students at residential or non-residential semi-urban campuses who used buses did try and use their commute time for studying.

All of the students we interviewed, regardless of the type of institution they attended, were actively involved in allocating their time to manage their academic work, fitting it into the gaps of available time in their days. While their proportions may differ based on life roles, preferences, and campus location, students were making time for schoolwork between classes, in the evenings or on the weekends, on the commute, or at work. It is worth thinking about the nature

of students' time constraints while on campus. Students under time pressure may be particularly affected by less than optimal study spaces, such as a lack of zoned quiet area in their library.

## Discussion and Conclusions

Assessment approaches in higher education spaces such as libraries are frequently rooted in a perspective that frames students only through their identity as students. However, students have complex lives beyond their coursework and their campuses. If we want to understand students' experiences, we must expand our approaches to consider the whole person. The holistic approach of the ADITL Project accomplished two things: it looked at student experiences at multiple campuses and it examined an entire day in each participating student's life. This broad approach revealed students' multiple expressions of identity as they negotiated places throughout their days and their myriad roles, such as a friend, employee, daughter, or parent, in addition to student. The complexity of these identities meant students were constantly layering tasks as they navigated roles throughout the day: studying on the commute to campus; completing an assignment while helping a child do homework at the kitchen table; posting to a discussion on the learning management system while at work; inhabiting campus spaces as temporary study environments between classes. Understanding the complexities and realities of these overlapping taskscapes is critical to understanding the needs and priorities of our students and can help us respond with services, resources, and spaces that are sensitive to these realities.

Among the things we learned were that *how far* students have to travel to their classes and *how* they travel shapes their day. Access to limited parking spaces may lead students who commute by car to seek convenient study spaces on campus between classes, while urban students may



need to use the time they spend on city buses and trains to get their coursework done. Even students who lived on campus moved around throughout their day, assuming various roles and shaping their taskscape accordingly.

Another finding is that the map of student days can be surprisingly similar across different types of institutions. Though students at GAC, a traditional liberal arts campus, traveled the shortest distances, their days followed patterns not unlike undergraduates at IUB and UCB, large research institutions that have primarily residential undergraduate populations. Commuter students had to consider commute times in planning their days: students relying on public transit in urban areas spent the most time traveling to campus, but those who commuted by car had to factor drive time and parking availability into their daily plans. Though students across the board were most likely to report a feeling of happiness when they were at home, the choices they made for studying depended on convenience (such as proximity to their next destination) and on surroundings that encouraged them to do academic work (which could be a designated space at home or could be a table or carrel in a library where being in the company of other students encouraged focus). Students expressed a variety of preferences when it came to distraction and quiet or whether they preferred group or solitary work spaces, in some cases responding to whether they had a space to themselves at home.

Perhaps the most significant finding is that students in all eight institutions were on the move throughout their days, not just across space but among identities and roles. When our observations focus on students in a single library, on a single campus, it is difficult to witness the complexity of these daily journeys. Libraries should consider ways of making their services and resources accessible and convenient for students who are constantly on the move, often having to read or complete homework in less than ideal

settings, carving out space for academic work in chunks of time between tasks.

Further research could more deeply explore particular activities within a student's lived experience. Our approach did not inquire into differences between studying for class, completing homework, or conducting research, nor did we ask questions about students' reading or writing practices, rich areas for additional inquiry. Additional research in this area might help libraries develop intentionally differentiated study spaces that could satisfy the entire continuum of study preferences. Another avenue for exploration might be studying how students manage academic tasks while commuting or in specific living situations in order to develop support for the many different life circumstances and the variety of taskscape our students experience. Additionally, it could be interesting to use this method to explore days in the lives of older students, students enrolled in distance education, or graduate students.

In recent decades, librarians have diligently studied the use of their library buildings, striving to make changes that will benefit students and their learning, sometimes using ethnographic methods, often adopting changes that other libraries have implemented successfully, following popular trends. Less frequently have they examined their library as one location on a complex map of lived experience that includes classroom buildings, the distance between parking lots and classes, the hours spent on a crowded bus or a train while trying to catch up on homework, or the different kinds of study spaces found at home, whether that home is an apartment shared with multiple generations of a family or a dorm room. Our approach forced us to understand our libraries as just one location within the wide range of each student's taskscape. If we situate the library in a broader geography of lived experience we are better able



to promote learning beyond the library to support the whole student, insights that can be shared among libraries.

In carrying out the ADITL Project we are making an argument for a more open-ended comparative assessment of student experiences, and for bringing more holistic pictures of student life into conversation with academic library assessment programs. For this reason, this study purposefully chose an exploratory approach that did not focus on one part of the university (the library) but rather the webs of interrelated places and activities that comprise students' everyday educational experiences and are both internal and external to their institutions. Moreover, because of its unique design, this study provides a rare opportunity for direct comparison of these experiences across multiple types of universities, laying groundwork for a broader understanding of students' lives and needs across institutions. Comparative work, though complex to carry out, allows us to gain a grounded sense of what is truly unique, as well as what is shared experience that everyone can learn from and act upon.

Libraries are feeling pressure to demonstrate their value to their institutions and to use their assessment efforts to prove they offer a good return on investment.<sup>29</sup> Alignment with institutional goals for student success is often given as the purpose of these efforts, but this focus can become artificially narrowed to documenting how successfully the library influences students, an approach that is as much for the benefit of the library as for the students. The collaborative,

comparative, and holistic design of the ADITL study placed the focus on people who are (among other things) students leading complicated lives, with the goal of using that knowledge to inform decisions made in the library. This collaborative approach not only gets us out of the library, it also helps us see beyond our own institutions and beyond common assumptions about students, providing a foundation for further research focused on what it is our students distinctively need.

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<sup>27</sup> Box and whisker plots indicate the median by the center line, the lower (Q1) and upper (Q2) quartiles (the shaded dark and light blue, respectively), data points within 1.5 times the interquartile range (i.e., the distance between Q1 and Q3, shown by the "whisker" lines), and individual outliers (the dots outside the box plots). Note the similarities in the plots of residential campuses (IUB, UCB, GAC), non-residential campuses in semi-urban locations (IUPUI,



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UNCC), and non-residential campuses in urban locations (CUNY BC, CUNY CT, CUNY BMCC).

<sup>28</sup> The term “home” is used throughout to mean both off-campus dwellings and on-campus housing.

<sup>29</sup> For example, the Association of College and Research Libraries embarked on a Value of Academic Libraries Initiative in 2010, receiving a

multi-year federal grant in 2012 for the “Assessment in Action” program, designed to build librarians’ capacity to assess library contributions to student success in order to demonstrate library value. More information about this initiative and the grant can be found at <http://www.acrl.ala.org/value/>.





## Appendix A: ADITL Text Message Survey Questions

Where are you? Please be specific.

[Open Response]

What are you doing?

- Attending Class
- Studying or other academic work
- Working
- Family, Social, or Recreational Activities
- Commuting
- Eating
- Other \_\_\_\_\_

How are you feeling?

- Very Happy
- Happy
- Neither Happy nor Unhappy
- Unhappy
- Very Unhappy

## Appendix B: ADITL Debriefing Interview Guide

The ADITL debriefing interview is designed to be semi-structured and open-ended, and the interviewer may add additional questions or follow-up questions as necessary. These questions should therefore be understood as a framework rather than a script.

1. [Show student the map of their day] Please walk me through your day from beginning to end. [Follow up as needed for specifics about each location and why the student traveled there.]
  - a. Why did you go to [location]?
  - b. How long were you there?
  - c. What were you trying to do or accomplish while you were there?
2. What time does your day start?
3. What time do you go to campus?
4. How do you get to campus?
5. How long does it take you to get to campus?
6. Where do you study?
7. Why do you like studying there?
8. On this day you studied at [location]. Why did you choose to study there?
9. How much time do you spend studying on a typical day?
10. How many classes do you have?
11. How many hours per day do you spend in class?
12. Do you work in addition to attending the university?
13. Where do you work?
14. How far is it from campus?
15. How do you travel to work?
16. How much total time do you spend commuting on a typical day?
17. What kinds of extracurricular activities do you participate in?
18. Do you live on campus or off campus?
19. What time does your day usually end?
20. You indicated that you felt [happy/unhappy] at [location]. Why did you feel that way?



21. What was the most frustrating part of this day for you?
22. What was the best part of this day for you?
23. What do you like the best about [student's campus]? What do you like least?
24. What are the most difficult things about studying at [university]?
25. How did you choose to attend [university]?
26. What is your major? How did you decided to study [major]. [If undeclared: How will you decide on a major]?
27. Is anything missing from the map? What?

