

The laptops provided caseworkers opportunities to work outside the office environment in new ways. This chapter reports on how the testers used those opportunities in terms of the type of work done and the locations, including attention to issues influencing that use. The results include attention to three locations: at home, in court houses, and in the field. Issues examined in relation to using the laptop outside of the office environment include: (1) difficulty establishing connection, (2) loss of connection, (3) the speed of connection, (4) level of privacy (or personal work space and ability to ensure confidentiality of information), (5) personal safety, and (6) amount of time available to use the laptop. How information was accessed and entered by testers was also examined.

### Extent of use

The results illustrate two main benefits of mobility: 1) increased flexibility in where and when all types of CPS work is done, and 2) increased access to information while out of the office. The laptop was used in case investigation and interventions, documentation and reporting, and court-related activities while in the field, at court houses, and at home. Testers used the laptop during normal work hours, after work hours, during commute times, and when working overtime. About 60% of caseworkers from both districts reported using the laptop while working overtime.

Case documentation was the most frequently use, including inputting and updating notes, and completing safety assessments. Other work included reading and reviewing case histories or new cases, doing person searches or checking client histories, conducting clearances, email, accessing government or other Web sites, and looking up services for clients. One caseworker stated, "I have used the laptop to complete safety assessments, enter interviews, complete RAP's, and other case related work," while another recounted "I once used it at a 30 Day Conference to do a clearance and access my email to look up a court document." Another said, "I mainly use the laptop to update my notes and submit cases. I also use it to check and return e-mails and for directions. When I am in the field and get a new case, I use it to read supervisory directives and case history."

The extent to which caseworkers can access or enter information while out of the office has a big influence on how mobile the testers can be. There appears to be a shift from the pre-test period to the during test period in access to and the ability to enter information. Overall, approximately 72% of testers report using the laptop to access information while in the field at least once a week. Similarly, approximately 68% of testers accessed email at least once a day or more while 54% of testers reported using their laptop at least once a day or more to access map directions. Laptop use significantly reduced the need to return to the office during the work day. Over one-quarter of the testers reported never returning to the office to enter information, compared to 6% before the test. Similarly, 42% reported never returning to the office to access case information while in the field, compared to 15% before the test. Cell phone use decreased somewhat as well. Before the test, about 80% of testers reported calling their supervisors one to three times a week to access information, down to 57% after the test. There was a similar decrease in the number of people calling colleagues for assistance with accessing information while out of the office, although not as dramatic a shift as with the supervisors. One caseworker stated, "It increases caseworkers opportunities to access services while in the field and affords the CPS worker more independence in acquiring clearances." Thus laptop use may increase the productivity of non-users who would otherwise be on the receiving end of phone calls from caseworkers in the field.

The testers reported several obstacles to mobile use: inability to establish a connection in all locations, not having a dedicated space to work in court houses, overtime policies that discourage work at home, and differences in individual workers preferences about using the laptop during non-working hours.

Table 1 below details the percentage of testers using the laptop at different locations, as well as the average length of time the laptop was used. Testers reported using the laptop most frequently at home, 86% use the laptop at home compared to other locations (44% using it in the court house and 42% using it in the field). In addition, caseworkers use the laptop at home on average for four and half hours per week, compared to using it in court house or the field an average of just over two hours per week. One caseworker stated, "If documentation of the notes cannot be completed at the office, they can be completed at home on the laptop. Notes can also be done while waiting in court."

**Table 1- Location and Hours of Use Per Week**

	Overall (n)	Average length of use per week	Manhattan (n)	Staten Island (n)
Home	86 % (82)	4.47 hours	89 % (41)	84 % (41)
Court	44 % (42)	2.34 hours	44 % (20)	45 % (22)
Field	42 % (40)	2.33 hours	35 % (16)	49 % (24)
Office	6 % (6)	0.30 hours	0 % (0)	12 % (6)
Do not use at all	4 % (4)	--	2 % (1)	6 % (3)

Although it has been hypothesized that caseworkers will be able to use their laptops during their commute to and from work, it seems the nature of the commute (i.e., using various forms of public transportation or dealing with traffic) may not allow optimal conditions for laptop use. Approximately 91% of testers in Manhattan and 68% of testers Staten Island have commute times between 30 and 90 minutes. The majority of caseworkers do not do work on their commute. Those that did, used cell phones to make contacts. Interestingly, the number of testers reporting that they work during their commutes went down during the pilot period. During the pre-pilot period, 33% of Manhattan testers and 27% of Staten Island testers reported working during commute times, however, after the test period, only 19% of Manhattan and 11 % of Staten Island testers reported working during their commute. Of those who do work during their commute time, a higher proportion of testers from Staten Island (83%) use the laptop than in Manhattan (58%).

Many caseworkers reported more flexibility in when and where work can be done and some changes in personal work styles were evident. One caseworker stated, "It serves to increase your level of flexibility and offers you greater independence." Another commented, "When I am able to document sensitive information right away, I don't have to stress about rushing to the office to document it before speaking to supervisors about the issue."

More testers now feel that they do not have to wait to enter information in CONNECTIONS when activity happens at the end of the day, however, many still believe they will wait until the next morning. Before the test, about 20% of testers disagreed that they had to wait to enter information the next morning (and 78% agreed), after the test, 33% disagreed they had to wait until the next morning (and 58 % agreed). While these are not huge shifts, some individuals did benefit. Several caseworkers stated, "With the laptop, I enter my daily progress notes on time. That means any visit that I did after work hours is entered before the next work day." while another said, "I don't have to wait until the next day to input my notes after an initial visit or field visit. It is very helpful." The introduction of the laptop made no changes to perceptions of caseworkers having control over their schedule during the day or being able to schedule their time more efficiently. Most already perceive that they have control over their schedules and can schedule time efficiently.

Overall, 48% of testers rated the log-on process as very difficult to extremely difficult, 28 % rated it as neither difficult nor easy and another 20% said it was easy. However, Staten Island testers reported greater log-on difficulty than Manhattan testers (61% of Staten Island and 35% of Manhattan testers reported logging on to be very difficult to extremely difficult). Many testers also experienced problems with connectivity. Staten Island testers consistently reported establishing a connection, losing a connection and the speed of connection as more problematic in all locations than testers in Manhattan. This difference is especially evident in perceptions of problems occurring at court houses and in the field.

### Use in the field

About half of Staten Island testers (49%) reported using the laptop in the field on average for 2.74 hours a week compared to roughly 35% of Manhattan testers using it on average for 1.88 hours a week. Caseworkers reported using the laptop when taking public transportation, outside of a clients home, in a hospital, and at coffee shops in between appointments.

In terms of issues that affect the use of the laptop in the field, technical difficulties with establishing and maintaining the connection as well as the speed of connection were important. Approximately 65 % of testers in Staten Island reported establishing a connection problematic, 74% reported loss of connection as problematic, and about 80% reported speed of connection as problematic.

### Graph 3 - Problems Using the Laptop in the Field

In Manhattan, 40 % of caseworkers reported establishing a connection as a problem (but a similar proportion, 42 % perceive it as not a problem). Likewise, 47 % reported loss of connection as problematic (but almost 50 % do not see it as a problem or are neutral). About half of Manhattan testers reported speed of connection as problematic.

Work environment factors such as privacy and physical danger are perceived differently than technical issues. Almost two-thirds of the workers in both field offices did not perceive lack of privacy as a problem in the field. However, perceptions of personal safety did differ. In Manhattan, a larger proportion of testers (20 %) felt like they were in danger using the laptop in the field compared to 6 % of testers in Staten Island. Unlike Staten Island where fear for personal safety did not seem to come up almost at all during the workshops, nearly every caseworker in Manhattan stated that fearing for personal safety was one of the main reasons why they did not carry their laptop in the field. They felt that having an expensive piece of equipment would make them even a bigger target, in addition to being CPS caseworkers. One caseworker recalled being asked by a client how much would her computer cost and she reported that it made her feel very uncomfortable and she never brought the laptop again.

The perception of having small blocks of time out in the field to use the laptop was split among testers. About half in both field offices reported that having small blocks of time was not a problem in using the laptop, while the others were unsure or considered it problematic.

Manhattan testers noted during workshops and interviews on several occasions that “the field” was not conducive to working on a laptop. Several mentioned the lack of suitable locations in which one feels comfortable. Some stated they try to schedule their appointments back-to-back to minimize the time they have to spend in some parts of the city due to security concerns, and thus do not have time to stop to use the laptop in between appointments. Several caseworkers reported during the workshop that they kept the laptop at home unless they knew that they were going to court that day. In addition, many reported that they will not use the laptop in a client’s home. They said that during this time they try to establish a rapport and make a connection with the family. Although some did say that for appointments with professionals at schools, hospitals and police stations, they would consider using the laptop during the meeting.

### Use at the court house

The amount of time caseworkers spend in court suggests that is an important location for mobile work. Testers in Staten Island and Manhattan reported spending on average four days a month at court (4.12 and 3.95 days respectively). Approximately 60% of testers in Staten Island reported waiting in court more than five hours for a typical court appointment, whereas only 31% of Manhattan testers reported waiting in court more than five hours for a typical appointment. The average length of time spent waiting in court houses was higher in Staten Island (5.60 hours) than in Manhattan (4.36 hours).

These differences relate to the total number of hours testers use the laptop in court houses.

Approximately 45% of testers in both field offices reported using their laptops while at the court house. Staten Island testers used the laptop on average for 2.77 hours a week, similarly, Manhattan caseworkers reported on average 1.86 hours of use a week. Manhattan has a higher proportion of workers using the laptop for one to three hours a week (52%), as compared to Staten Island testers (35%).

Overall, Graph 4 below shows that more Manhattan than Staten Island testers reported favorable conditions for working on the laptop while at court. A smaller proportion of Manhattan testers reported technical difficulties or lack of privacy as a very big problem. The proportion of Staten Island reporting court problems was approximately 73% for establishing a connection, 75 % for loss of connection, almost 80% for slow speed, and about half (48%) for lack of privacy. Interviews with Staten Island testers revealed that there is no private room to wait in the court house and caseworkers are mixed in with the general population and so are unable to work on any confidential information. They said that if they had a place to work privately, they would use it more frequently even with the technical challenges.

### Graph 4 - Problems Using the Laptop in the Court Houses

In terms of technical difficulties, it seems that the overall experience of Manhattan testers was again more divided. For example, 36 % of testers reported establishing connection as not a problem, and almost the same proportion (38 %) reported it as problematic. Similar patterns are present for loss of connection, although speed of connection seemed to be a more of a problem for testers (47 % reported it as problematic versus 30 % perceiving

it as not a problem). In interviews, it was noted that Manhattan family courts offer a private room for caseworkers that provides privacy conditions to complete CPS work.

It is uncertain why Staten Island used the laptops more in court houses given the reported problems using it there. Several case workers stated that they simply do not bring the laptop to court with them any more, given the technical difficulties. However, the survey information clearly shows that use in court is important. Both field office testers mentioned that the laptop would bring the greatest benefits if it could be used reliably in court – the long wait times mentioned provide the worker with the ability to work on documentation while waiting to be called.

### Use at home

During the workshops, many participants stated that they used the laptop at home, mostly during after hours. Testers reported increased capability to catch-up on documentation at home. Several stated they were more productive at home due to less interruptions from their colleagues, while others stated that technical problems deemed them less effective than at the office as it took them longer to do the same amount of work. Although, the majority of caseworkers used the computer at home, attitudes and preferences varied. Some caseworkers expressed positive attitudes toward having increased flexibility to do CPS work from home, while others expressed negative attitudes citing the laptop created an intrusion in their personal life.

Testers did not agree on how the current compensation policies for overtime work at home impacted their propensity to use the device. Some caseworkers expressed a preference or willingness to use the laptop at home regardless of compensation, suggesting that “peace of mind” and “being caught-up” motivated their use. One testers said, “When I have time at home I will sometimes enter notes so that I don’t feel so overwhelmed at work. I do this on my own time to keep myself from being so stressed out about notes not being entered in a timely manner.” Those testers less willing to use the laptop at home simply stated that they should not work at all unless they are compensated, and some just wanted to make sure that if they did do work at home, that they would be fairly compensated. One caseworker stated, “The process of getting overtime approved to work on the laptop is too complicated.”

Most caseworkers experienced some problems with connectivity at home. Staten Island testers reported connectivity issues more frequently than Manhattan testers. More than half (56 %) of Staten Island caseworkers reported establishing a connection and the speed of connection as problematic, while 46 % also reported losing a connection as problematic. Understandably, the lack of privacy, physical danger, and small time blocks did not seem to present an obstacle to most Staten Island testers when using the laptop at home.

### Graph 5 - Problems Using the Laptop at Home

Manhattan testers overall see technical problems at home as less problematic than their Staten Island counterparts. While about 35 % of testers reported establishing a connection as problematic, about the same proportion (36 %) perceive it as non-problematic. Similarly, 29 % of Manhattan testers reported the loss of connection as problematic, but another 22 % reported it as non-problematic. More testers in Manhattan viewed the speed of the connection to be more problematic than other technical issues, about 45 % reported it as problematic, but again, a comparable proportion (33 %) reported it as not a problem. Lack of privacy, physical danger, and small blocks of time posed no problem for most of the caseworkers when using the laptop at home.

Similarly to Staten Island, the issue of overtime compensation was mentioned frequently in connection with using the laptop at home. Caseworkers expressed concern about pay for their work at home. They also stated that although the policy of having to get a prior approval has not changed, the level of scrutiny and expectations for work at home seems to be higher. One tester stated, “The general expectation is that you have your laptop so you could take your work with you wherever you go even if you are off the clock.” Another said, “While I believe that the laptop is extremely useful, I am concerned about management’s expectations for those who have them. I am a mother of two children and I sort of felt compelled to use my laptop at odd times, just so my manager would not use the phrase ‘but you have a laptop’.” Some of the caseworkers also mentioned the fact that because of the relatively small number of cases coming in during the pilot period, they could not truly evaluate the usefulness of the tool for work at home because they were caught up and did not need to use it. This perception did not match the actual number of cases during the test period, which actually increased slightly.

### Experiences from managers and supervisors

Overall, managers and supervisors II seemed more enthusiastic and positive than caseworkers as to how helpful

the laptops are in their everyday work. Home was viewed as the location where laptops were the most valuable to the manager and supervisors interviewed. They liked the flexibility for when and where they did their work. One manager stated that she took her laptop to all out-of-office meetings and after the meeting she would check on her cases so when she returned to the office she was caught up and was not surprised by anything. Another manager stated that it was great having it at home because if a caseworker calls late at night or on the weekend with an emergency she can go onto the system and look up whatever she needs to advise the caseworker from home, instead of having to go to the office. However, one supervisor expressed that the laptop's slow connection speed reduced the likelihood of using it at home and instead, preferred to continue to do work at home through the existing remote access.

## Conclusion

Although the laptop did provide a certain degree of flexibility of location and time, it did not truly enable "full mobile capability" of the CPS staff. This result was partially expected since Phase I of the mobile technology project demonstrated that CPS work does not lend itself to full mobilizing due to nature of the work itself. The need to establish close contact with the client and the family prevents use of a laptop in the client's home, so the need for hand-written notes cannot be fully eliminated. Additionally, the highly confidential nature of information that CPS caseworkers deal with dictates a need for privacy that is not always available outside of one's office or home. Lastly, the need for frequent contact with supervisors and the need for close oversight of caseworkers' decisions and actions dictates continual need for spending significant amount of time in the office.

Despite these limitations and despite some of the problems and issues encountered in the pilot, the laptop computer was used in a variety of locations and allowed caseworkers the flexibility of doing work on their own timetable and without the need to return to office. The degree to which this flexibility has been utilized varied from person to person depending on their personal preferences, their experience with the device, as well as their work practices and work ethic.

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