



# The **Future** of Illinois Library Cooperation

[Exploring Effective, Efficient Service Models]

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# Section 1

Executive Summary  
Key Findings/Recommendations

## Background

In 2010 and 2011, regional systems in Illinois—the main instrument of cooperative library services—underwent major restructuring as a combined result of budget constraints and a changing environment. Before and as these changes were occurring, the Illinois Library Association (ILA) began convening groups of stakeholders to plan and provide for cost-effective responses to these changes that would best serve Illinois library patrons.

The initial effort was a statewide planning process that developed five priority areas for cooperation: Delivery, Shared Catalogs, Group Purchasing, Library and Professional Development, and Advocacy/Marketing. Subsequently, the Illinois State Library (ISL) awarded an LSTA grant to ILA to investigate new service models, especially in the area of materials delivery.

Delivery was identified as a priority because it is of great value and it is one thing that libraries truly cannot do without collaboration. The delivery study, as the project has come to be known, was developed with input from representatives from both former and newly merged library systems, Illinois Heartland Library System (IHLS) and Reaching Across Illinois Library System (RAILS); Chicago Public Library System (CPLS); Illinois Library Delivery Service (ILDS); Illinois State Library (ISL); and other interested parties.

## Parameters of the Study

In order to prevent any possible future conflict of interest, the study was limited to investigation and documentation of current conditions and did not allow contact with vendors or the issuance of an RFP/RFI to providers. Initial information was gathered and shared via a wiki in early 2011, a stakeholders' meeting was held in April 2011, and a consultant RFP was issued. Lori Ayre of the Galecia Group, an experienced delivery consultant based in California, was awarded the consulting contract in August 2011.

The purpose of engaging an outside consultant with delivery expertise was twofold: to bring in a neutral party to provide analysis, as well as bringing examples and best practices from around the country. In addition to reviewing the current state of delivery in both the north and south, as well as through ILDS, the report addresses issues such as

- Sorting
- Coordination
- Shared ILS (Integrated Library System)
- Route optimization
- Equipment

- Logistics/transportation

This report, in and of itself, is not an implementation plan, but provides information and analysis to be used in developing such a plan. Implementation will have to be undertaken by those with decision-making authority, i.e., the systems and the state library. The recommendations section makes specific suggestions to improve and remedy existing conditions, as well as providing incremental steps and sequence for implementation. The recommendations are intended to provide information to decision makers at the systems and ISL as they plan for a new delivery environment.

Throughout the fall of 2011, the consultant conducted interviews, presented preliminary findings at the ILA Annual Conference, and developed “delivery profiles” for each of the former regions to assess costs, needs, capacity, etc. The consultant’s report includes extensive information on delivery practices in libraries across the country, data and cost comparisons on current delivery costs in Illinois, and a series of recommendations on how to migrate to a new model that utilizes existing resources to minimize costs and maximize the patron experience, including how materials are requested as well as delivered.

In early March 2012, the consultant and ILA held a series of meetings with representatives from RAILS, IHLS, CPLS, ILDS, and ISL. These sessions were intended to solicit reactions and additional input to the report, as well as transfer this process to the parties directly responsible for future research, evaluation, and implementation (i.e., systems and state library). The meetings were constructive and while they did not result in any major changes in the report’s findings or recommendations, they offered an opportunity for clarification, provided additional information, and created a dialogue that is reflected in this final draft.

Other priority areas of the initial FILC report are addressed in the third section, and include discussions with a California-based project and other collaboratives to explore group purchasing, as well as possible roles for cooperation between ILA, ISL, and other library agencies in providing continuing education and professional development for libraries, librarians, and trustees.

## KEY FINDINGS

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Resource-sharing is complex. Illinois has a long history of strong state-level support for shared catalogs and delivery services. But as populations grow and resources decline, new models are needed. The consolidation of regional library systems is part of this, with implications at the operational and individual library level, and a goal to minimize the impact on patrons. This study begins from the premise that the purpose of delivery is to support resource-sharing, and the findings and recommendations stem from that fundamental premise.

The sample surveys that were conducted as part of this study reported a high level of patron satisfaction with current delivery services, but the underlying assumption is that costs must be contained in order to continue to provide sustainable and equitable service in the future. While the study does not cost out specific proposed operational or capital expenditures, it does make significant strides in providing metrics to evaluate current costs to compare to other models and best practices.

The following list attempts to capture key characteristics, trends, and directions of current practice as the former regional systems have begun to merge.

### **One-Size-Fits-All Solution Will Not Work**

- Academic library delivery needs are different from publics
- Large public library needs differ from small publics
- Geography, individual library policies, and philosophical views of resource-sharing all play a role in differentiating “ideal” delivery for each library

### **Existing Models Are Heavy on Administration and Overhead, Short on Some Critical Information**

- Too many hubs, too many delivery managers, not enough coordination (consolidation is under way)
- Overall lack of comparable data, especially in terms of true delivery volume and sorting metric

### **Lack of Shared Vision and Practice**

- Inconsistent resource-sharing practices
- Not enough sharing of “best practices”
- Inconsistent reporting methods
- Inconsistent methods for packaging and transporting and labeling material

### **Resource-sharing (ILL) System Beyond the Shared ILSs Is Cumbersome**

- Unintuitive and difficult for users unless on shared ILS
- All requests beyond shared ILS must be staff mediated

### **Inefficiencies in Operations**

- Routes
  - Not optimized (without knowledge of pickup and delivery volumes, can't optimize)
  - Inefficient use of delivery vehicles and drivers (some overlapping routes)
- Sorting
  - Presorting in libraries is generally inefficient, expensive, and takes up valuable in-library work space, even if it does sometimes allow for same-day delivery
  - On-truck sorting is generally inefficient and expensive and takes up valuable driver time
  - Sorting in most regional hubs is less efficient than it could be, based on reported sorting rates
- Containers
  - Inconsistent and often not optimal for transport and safeguarding material
  - Too much packaging; uses up too much space in libraries and trucks
  - Difficult to handle
  - Process of preparing outgoing material is unnecessarily complex
  - Even if pickup and delivery volume were known, different container types make it impossible to predict when vehicles are full

# KEY RECOMMENDATIONS

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## **Establish Illinois Logistics Coordinator (or develop mechanisms to coordinate)**

- Create statewide standards
- Share best practices and provide ergonomics guidelines
- Track delivery volume and performance of delivery services
- Provide ongoing monitoring and evaluation of delivery services
- Guide implementation of recommendations adopted from this report
- Seek opportunities for collaboration among systems

## **Move IHLS to Shared ILS (under way at time of the study)**

- Makes resource-sharing much easier for patrons and staff
- More control over how requests are handled

## **Consolidate RAILS into Fewer Shared ILSs**

- Explore overlay of consortial ILS, especially within RAILS (e.g., Evergreen)
  - Provides options for stand-alone libraries
- Potential to reduce and/or consolidate overall number of shared ILS operations

## **Optimize Sort Operation for Each Shared ILS**

- Standardize practices, adopt Lean methodologies
- Evaluate label-less sorting, implement where possible
  - Eliminates need for presorting and labeling by library staff for all items within shared ILS system
  - Items sorted at regional hub associated with shared ILS by reading bar codes
- Evaluate batch level check-in of delivery (aka tote manifesting)

## **Explore Modified ILDS for Implementation in RAILS**

- ILDS handles daily delivery
- Items sorted at regional hubs (reduce number of hubs)
- Projected savings of \$240,000 in delivery expenses
- Provides proxy/pilot project approach to partial/selective outsourcing

## **Reduce Number of Sorting Hubs/Facilities at Both RAILS and IHLS**

- More than one shared ILS can be served by a single hub
- Fewer needed to support overall consolidation of system services, etc.

## **Standardize Delivery Frequency**

- Establish standard five-day-per-week stops where applicable
- All others to be on-demand
- Eliminates delays caused by some stops not receiving daily pickup

## **Evaluate Outsourcing Options**

- Develop mechanisms to evaluate costs and benefits of outsourcing some or all of the delivery service (transport only, transport + sort, on-demand vs. scheduled, etc.)
- Objective is to fairly evaluate options and ensure that in-house system is competitive, whether or not you choose to outsource

## **Standardize at State Level**

- Use standard codes, totes, and packaging (could eventually streamline intra-system delivery)
- Set standards for service levels in order to provide equitable service statewide and seek commitment from participating libraries to support (pull requests daily, etc.)

## **Implement State-of-the-Art Resource-Sharing System for State**

- State-of-the-art systems improve staff workflow with circulation interoperability
- State-of-the-art systems improve patron experience with self-service
- Examples include Relais D2D, OCLC Navigator, Auto-Graphics AGen Resource Sharing, and Fulfillment (not yet released)

## Section 2

The Galecia Group Report:  
Resource Sharing and Delivery  
by Lori Bowen Ayre

# COMPONENTS OF A LIBRARY DELIVERY SYSTEM

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Library delivery is not simply a transportation issue. It is a multifaceted library workflow that involves the patron experience, including discovery and requests through library catalogs and interfaces; library policies; software and shared catalogs; sorting; and of course, logistics. While there are many technical advances in all these areas, discovery and the patron experience are affecting delivery as never before.

Libraries are in the business of connecting people with information that is very often in the format of a physical object. Getting the right physical objects to our patrons when they need it largely determines whether our patrons feel satisfied with the services we provide. Library delivery generally refers to the physical movement of these physical objects from one library to another. It is one piece of the “materials handling” workflow that is critical to the efficient operation of a library, library system, and consortium.

The Materials Handling Industry of America defines material handling as “the art and science associated with providing the right materials to the right place in the right quantities, in the right condition, in the right sequence, in the right orientation, at the right time, at the right cost using the right methods.” When evaluating a library delivery system, it is indeed an art and science because it requires us to gather a lot of data, which we then evaluate creatively in order to solve problems.

## The Patron Experience

To an unprecedented degree, library delivery is now shaped not only by patron expectations, but also by their direct participation in the system. How do patrons find what they want and how do they get it? If a patron finds what they want on the shelf and grabs it, the library delivery service isn't involved. Library delivery is involved when the patron seeks something that is not on the library shelf. In most cases, this means the patron is using the library's catalog. Just ten years ago, a patron would have had to get help from library staff in order to get an item not on the shelf. But today, many libraries make it possible for patrons to find items beyond their library walls and, more importantly, allow patrons to request that items be delivered to their home library (an “unmediated request”). Patrons love to find and request their own material. And, quite surprising to some library staff, many patrons also prefer using self-check-out machines (over check-outs at a staffed desk). Between 2000 and 2008, interlibrary delivery volume increased all around the country as libraries rolled out more self-check-out machines and implemented unmediated request systems.<sup>1</sup>

In most cases, the software will target an item that is on the shelf in the library location that the patron has defined as their “pickup location.” Some software recognizes when an item has been returned to the pickup location and targets that one to fill the hold (this can be good or this can be bad depending on whether the process is already under way for pulling an item off the shelf somewhere else). Some software can look at items that are available within a small group of libraries first (e.g., branches of a library system or libraries on a specific delivery route) before expanding the search to libraries beyond that group. How sophisticated the software is, and how well it is configured, and whether staff is monitoring the effect of those configured settings can have a significant effect on both costs and quality of library delivery.

## Sorting

Sorting of library material as it moves among libraries is the backbone of library delivery—it happens at library service desks, in library backrooms, on delivery trucks, at regional headquarters, and/or in big warehouse spaces. Efficiency and accuracy of sorting affects overall delivery and patron satisfaction. Incorrectly sorted material results in extra trips back and forth and delays delivery to the patron.

Sorting is almost always best done in a large warehouse space dedicated to sorting with staff trained in industry best practices. A sort operation that doesn't employ industry best practices can take three times longer to get material sorted and ready for delivery. Trying to sort material at public service desks is rarely efficient and not the best use of a librarian's or paraprofessional's time. Many libraries opt to dedicate backroom spaces to sorting, when in fact the space available at a central sort center is often larger and more amenable to sorting; warehouse space is also generally quite a bit cheaper than any in-library space.

## Logistics and Transportation

Finally, library delivery is about transportation: the actual movement of items from one library to another. Like sorting, the transportation (or logistics) industry is large and well-established. A library running its own delivery service needs to be run like delivery services that support other industries. Drivers need to be vetted, trained, and managed. Appropriate vehicles need to be selected, outfitted, and maintained. Routes need to be optimized and monitored to ensure drivers and vehicles are used wisely. People and trucks need to be scheduled, supervised, and insured. Substitute drivers and emergency vehicles need to be procured. And someone needs to handle communications when drivers are late or libraries are closed or there are road closures that prevent deliveries.

<sup>1</sup> Greg Pronevitz of the Massachusetts Library System reported that library delivery volume increased 500% between 1998 and 2008. In Rhode Island, delivery volume doubled between 2001 and 2009 (<http://www.olis.ri.gov/network/delivery/survey09.php>). In Wisconsin, statewide delivery increased almost 150% between 2000 and 2006 ([http://www.scdelivery.info/systempages/system\\_statetotals.htm](http://www.scdelivery.info/systempages/system_statetotals.htm)). MnLink (an ILL system in Minnesota and the Dakotas) volume increased 5 times between 2004 and 2007. This statistic and more are available from *Moving Materials: Physical Delivery in Libraries* (Eds. Valerie Horton and Bruce Smith).

Illinois libraries have a long and proud history of resource-sharing. Promotion and support of cooperative library networks go as far back as the State Library Act of 1939.<sup>2</sup> In 1965, the first Illinois library systems were established “and served as a national model of multi-type statewide library cooperation.”<sup>3</sup> In 1977, the Illinois State Library (ISL) established ILLINET/OCLC Services which incorporated OCLC into the state library organization structure. In 1993, ISL and the Missouri Library Network Corporation established LVIS (Libraries Very Interested in Sharing) to encourage and provide more resource-sharing opportunities to multitype libraries in the Midwest. In 1994, ISL included the following statement as one of the Guiding Principles for Illinois Libraries:

“The Illinois State Library is committed to networking which represents good public policy in maximizing the use of the resources of all types of libraries. Every library user benefits from expanded access to information beyond the four walls of a single library building; a single library cannot meet all of the needs of its users. Networking is a cost-effective means of delivering information to citizens of Illinois by using library resources throughout the state and beyond. Technology is key to effective networking, including, but not limited to, machine-readable bibliographic records and enhanced telecommunications links among libraries and has facilitated linkage to worldwide information sources.”<sup>4</sup>

Based on the state’s investment in library delivery systems, it is clear that there is a commitment to the value of sharing resources. Presumably, this commitment is shared by the libraries taking advantage of the service. This report was undertaken with that assumed shared value in mind. Based on discussions with stakeholders, there is a clear desire to make library materials available equitably; it is also recognized that local resources result in different interpretations of how best to implement an equitable resource-sharing system, and it is important to recognize the different conditions. An effective delivery system is one that has policy agreement at both the state and local level, and takes advantage of controls and priorities that can be instituted through resource-sharing software systems. It should be possible for statewide policies to be accepted by all libraries, while empowering libraries to exercise local policy controls.

### Statewide Support

The state library has provided support for resource-sharing in two key ways. Since establishing ILLINET/OCLC Services, ISL has ensured that all Illinois libraries maintain catalog records in OCLC’s WorldCat database. This ensures that all libraries have access to interlibrary loan (WorldCat Resource-Sharing) and can relatively easily borrow from other Illinois libraries. In addition, ISL has financially subsidized delivery services in the state, including both delivery services operated by individual regions as well as the statewide delivery service (ILDS) that serves participating academic libraries and provides linkage between regional delivery hubs.

ILDS is funded by an annual grant from the Illinois State Library to the Consortium of Academic and Research Libraries in Illinois (CARLI). ILDS is coordinated by CARLI staff, with the transportation contractually outsourced to a regional courier. The current contract is with Lanter Delivery Systems, Inc.<sup>5</sup> Over time, the number of the original multitype regional systems was reduced from twenty to twelve, and then from twelve to nine. In 2010–2011, the number was reduced once again, merging nine regions into two regional systems (RAILS and IHLS) plus the Chicago Public Library System (CPLS). Each of the former systems operated (and largely continue to operate) their own delivery services, providing delivery to their members.

### Sustainability

Reliable sources of funding for many public services, including libraries, are increasingly scarce. State funding for interlibrary delivery services has been and continues to be a priority, as articulated by ILS, the regional systems, individual libraries, and patrons. The best way to ensure sustainability is to develop a model that delivers value for cost, regardless of the funding source. This means the system must be efficient and flexible, provide appropriate incentives to leverage existing resources, and draw on best practices of the greater delivery and logistics industry.

<sup>2</sup> See [http://www.cyberdriveillinois.com/departments/library/who\\_we\\_are/mission.html](http://www.cyberdriveillinois.com/departments/library/who_we_are/mission.html).

<sup>3</sup> From the Future of Illinois Library Cooperation: An Action Plan with Background Papers, Working Papers, and Recommendations, available at [http://www.ila.org/pdf/FILC\\_2010\\_w.pdf](http://www.ila.org/pdf/FILC_2010_w.pdf).

<sup>4</sup> These principles were adopted in 1994 and amended in 1996 by Illinois State Library Advisory Committee. See [http://www.cyberdriveillinois.com/departments/library/who\\_we\\_are/guidprin.html](http://www.cyberdriveillinois.com/departments/library/who_we_are/guidprin.html).

<sup>5</sup> See <http://www.lanterdeliverysystems.com/>.

### Geography, Equity, and Other Variables

The geography of Illinois poses a challenge because of distances between libraries in the south and rural areas versus high volume and density in urban and northern suburban areas. The ideal delivery scenario for each region is very different. Even the provision of delivery in certain situations is of questionable value (e.g., shipping by UPS may be cheaper if the distance is great and the volume is low).

Delivery to multiple library types is another variable. Large public libraries, especially if they are on a shared catalog, can send and receive forty to fifty bins of interlibrary loan items per day. Much of this material is popular reading material and DVDs, with patron satisfaction rather than urgent need driving turnaround times. Academic libraries are more likely to borrow and lend fewer items, but their patrons demand speed to meet deadlines. School and special libraries tend to borrow more than they lend and are generally lower volume, but sometimes need quick turnaround.

### Outsourcing vs. In-house

Choosing between outsourcing and in-house services is not a one-size-fits-all solution. It is especially difficult when there is already an investment in trucks, personnel, and facilities. The benefits of outsourcing need to be objectively weighed against the benefits of running the system in-house. Costs need to be accurately represented on both sides in order to determine what each option will really cost to operate.

Although each of the existing system delivery services has had a budget, assessing total costs has been a major part of this study. Overhead costs, truck and maintenance costs, sorting costs, staffing costs are all part of the equation, and it has been especially difficult to allocate costs associated with sorting separate from transportation. Both of the merged systems have done their best to allocate costs associated with each sorting hub accurately, but it has been a moving target.

### Leveraging Resources

The data presented in this report contain a number of assumptions, but are a significant step toward comparing apples to apples instead of apples to oranges to bananas. As one Illinois librarian stated, “So far we have a little too much fruit in the bowl.” But for the first time, a dedicated effort to both collect and analyze the data by an outside observer has yielded a baseline of current costs that are comprehensive and comparable. When viewed in the context of best practices and what’s happening in other library delivery systems nationwide, the data in this report support recommendations that argue in favor of flexibility rather than a monolithic solution.

Even with incomplete data, a delivery model appropriate for Illinois libraries is emerging. It is a hybrid solution that builds on the strength of the statewide backbone (ILDS) while taking advantage of some of the existing hubs to provide optimized sorting operations. This model leverages the strengths of the current systems and incorporates state-of-the-art warehouse and logistics technology and practices.

## Library Delivery

Until recently, there has been very little in the way of “best practices” when it comes to interlibrary delivery. ALA’s (American Library Association) Association of Specialized and Cooperative Library Agencies (ASCLA) Interlibrary Cooperation and Networking (ICAN) Physical Delivery Discussion Group holds meetings at the national ALA conferences, providing opportunities to share ideas and network with others involved in physical delivery of library material. In 2005, the Rethinking Resource Sharing Initiative grew out of the work of the Reference and User Services Association (RUSA), another division of ALA. In 2006, Moving Mountains: Exploring Library Courier Services Symposium was held. It was the first library conference dedicated to the topic of physical delivery of library materials. Several more Moving Mountains symposia followed.

In 2009, an effort began to document the best practices of physical delivery of library material. This work resulted in “Physical Delivery of Library Resources: Recommended Practices of the National Information Standards Organization (NISO).” It was drafted by the NISO Physical Delivery of Library Resources Working Group and was available for public comment until August 21, 2011. It is due to be finalized this year. Selected recommendations from the draft NISO document are discussed to the right:

1. **Delivery Service Coordinator.**  
Every library delivery service needs someone to serve as the liaison between libraries and the service providing delivery whether internal or outsourced. This is probably a full-time person, with a backup. Their work is dedicated to managing the day-to-day issues that arise, tracking operations and maintaining statistics, and managing the budget.
2. **Maintaining Records.**  
The following records should be maintained by the Delivery Service Coordinator: incident reports with location, time, driver and vehicle identification, library staff name, monthly and yearly statistics on number of items put in transit, and a list of all participating institutions.
3. **Delivery Policies.**  
Policies governing the physical delivery of material will help ensure smooth operations. Recommended policies include: standardized labels and routing slips, packaging policies, standard barcode placement (or Radio-frequency identification use), schedule policies, claim policies for missing and damaged material, communication policies addressing delivery delays, library closures, and other customer service issues.
4. **Service Level Agreements.**  
Delivery services, whether provided in-house or by a contractor, need to formally commit to the following: turnaround time, delivery time, sorting accuracy, delivery accuracy, claims handling, driver and vehicle identification, driver incidents handling, and vehicle capacities and volumes transported.
5. **Courier Management Systems.**  
CMS systems are used to manage information about delivery stops, drivers, trucks, and routes. CMS systems are also used to share information and facilitate communication between the Delivery Service Coordinator and the libraries, and for libraries to report incidents. It can also be used to track statistics and to manage billing.
6. **Item Labeling.**  
Keep labeling as simple as possible. Routing slips should include the destination location code, date of request, and owning location code. Where possible, slide the routing slip into the book or media case so that it sticks out the top. In some cases, rubber bands need to be used but rubber bands should be kept to a minimum.
7. **Item Packaging.**  
Keep packaging to a minimum and when you have to use it, make it reusable and recyclable. With proper containers, packaging can be mostly eliminated. Instead of jewel cases for CDs and DVDs, use plastic cases that are more flexible and durable.

*[See also Appendix A: Best Practices for detailed information on recommended processes and procedures, equipment, packing, etc.]*

## Case Study: Massachusetts Library System

In 2010, the Massachusetts Library System handled approximately 14.5 million items for 540 libraries of all types around the state at a cost of \$2.75 million. Like Illinois, Massachusetts had previously been divided into several regions (six) and within each region were several shared library systems (“networks”). Like Illinois, items between libraries on a shared ILS tended to stay within that network; however it was the regions that were responsible for delivery services, not the networks. Each of the six regions ran their own delivery service. Two of the services shared a vendor and sorting was done at one location for both regions. Some delivery services were in-house (for sorting and delivery) and some were outsourced for delivery while sorting was done in-house.

As of 2010, their costs break down as follows:

- Cost Per Item: \$ .19
- Cost Per Stop: \$26.43
- Cost Per Location: \$5,093

In 2010, the regions joined together to issue an RFP for outsourcing delivery and sorting services for the state. Shortly after that process began, the state eliminated the six regions and established the Massachusetts Library System (MLS).

Optima Shipping won the bid by providing a solution that would utilize sort-to-light technology and would guarantee 99.9 percent item level sorting and tote delivery accuracy without increasing costs.

Optima took over the Massachusetts contract last July and has been gradually implementing the sort-to-light solution. The solution requires a SIP2 connection to the network and also requires that at least 75 percent of the system’s items have barcodes on the outside of the item. Two of the nine networks are currently using this technology.

In addition to the accuracy improvements, Optima also offers additional services including separating holds from returns for the top 10 percent (in volume) for each network and separating branch materials.

MLS has developed standards to support their new statewide delivery service including standardizing on labels and location codes, shipping containers (21"x15"x9" attached lid plastic totes), bar code placement, and packaging (most items are shipping without packaging and rubber banding).

A video of the Optima operation is available here:  
<http://www.masslibsystem.org/optima-sort-to-light-delivery-operations/>.

The delivery system is funded entirely by the state.

## Case Study: Colorado Library Courier (CLiC)

CLiC’s delivery service handles 5.2 million items per year and services 370 libraries. It makes 53,280 stops per year and offers five-day-per-week service as well as one-, two-, and three-day-per-week service. The libraries participating in the service include academic, public, school, and special libraries. The service costs \$900,000 per year.

Based on the above data, the costs break down as follows:

- Cost Per Item: \$ .17
- Cost Per Stop: \$16.89
- Cost Per Location: \$2,432

The service also participates in Blue Sky Express which handles interlibrary loans between Kansas, Colorado, and the University of Wyoming. This service is provided to CLiC members at no additional cost. They also manage a second out-of-state courier linking service, COKAMO, between Missouri and Colorado, again at no additional charge to libraries.

In addition to delivery, the CLiC delivery service picks up library discards from select libraries and sells the items through Better World Books (or recycles them).

The managers of the service use Courier Management System (by Quipu Group) to manage their system and members can use it to generate the shipping labels. See <http://courier.clicweb.org/>.

The service is outsourced to American Courier.

The cost to libraries for the service is composed of a base fee plus a volume fee. Volume fees range from \$41,300 per year for 177,000 or more items per year to as little as \$700 for 3,000–5,999 items per year (under 3,000 items per year incurs no volume fee). See <http://www.clicweb.org/2011-2012-courier-fees>.

The base fee is \$1,960 for five-day-per-week service, \$1,280 for four-day-per-week service, and \$370 for three or fewer days-per-week service.

The delivery service receives 60 percent of its funding from the above fees and 40 percent from the state.

### Case Study: Tampa Bay Library Consortium

Tampa Bay Library Consortium (TBLC) provides direct delivery service to 239 multitype library locations Monday – Friday. In addition, another 90 libraries receive service via these stops. The service makes 33,436 stops per year and delivers 436,354 items.

Based on the above data, their costs break down as follows:

- Cost Per Item: \$1.18
- Cost Per Stop: \$15.41
- Cost Per Location: \$2,156

TBLC uses small zipper bags that hold just a few items. The bags have a space for a pre-printed label that libraries must print out and slip into the window. Libraries can choose between four levels of service as follows:

- Two-day-per-week: \$600
- Three-day-per-week: \$1,800
- Four-day-per-week: \$2,400
- Five-day-per-week: \$3,000

Libraries that get five-day-per-week service get 48-hour turnaround time on their deliveries. TBLC upgraded all the libraries that had been getting one-day-per-week service to two-day service because of the long transit times that resulted from the once-a-week option. The service is outsourced to Velocity Express.

Some of the tasks handled by the TBLC delivery team include:

- Manage the program five days per week, fifty-two weeks per year, except for holidays.
- Coordinate delivery access to sites so that the vendor can make deliveries.
- Monitor vendor performance and resolve missed-stop issues and mis-sorts.
- Receive invoices for damaged items, pay libraries, adjust vendor payments accordingly.
- Track lost or missing items.
- Maintain database of participating library information.
- Collect, cumulate, and report usage statistics.
- Receive, audit, and pay adjusted weekly vendor bills.
- Inform libraries about program changes, billing, and routing.
- Keep libraries supplied with delivery containers.
- Submit bills to members.
- Respond to inquiries from potential new participants.

In 2008–2009 TBLC introduced Global Positioning System (GPS) tracking to analyze problem routes. The tracker allows TBLC to see exactly where bags are delayed and helps resolve issues more efficiently. The GPS tracker has helped TBLC pinpoint several logistical issues with the vendor and improve service. TBLC plans to expand the program in the upcoming year.

TBLC receives an \$180,000 grant which accounts for approximately 29 percent of the budget. The remaining 71 percent is paid by participating libraries.

### Case Study: Wisconsin Libraries' Delivery Service Network

Two delivery operations are run out of the South Central Library System (SCLS) in Wisconsin. These two systems support a regional system in the Madison area and another operation supports statewide service. The statewide system intersects with Minitex, resulting in service between Wisconsin, Minnesota, North Dakota, and South Dakota.

The regional system delivers 6.5 million items per year, making 25,000 stops at 65 locations. The service costs approximately \$1,000,000.

Based on the above data, the costs break down as follows:

- Cost Per Item: \$ .15
- Cost Per Stop: \$40.00
- Cost Per Location: \$15,385

The statewide system delivers 800,000 items per year, making 25,000 stops at 700 locations. The service costs approximately \$1,200,000.

Based on the above data, the costs break down as follows:

- Cost Per Item: \$1.50
- Cost Per Stop: \$48.00
- Cost Per Location: \$1,714

All items sent via the Wisconsin Libraries' Delivery Network must be labeled with the following routing information legibly and prominently displayed.

- Route To: (system delivery hub)
- For: (delivery network member)
- Date: (date put into delivery)
- From: (library putting item into delivery)
- Notes

In addition, they ask that all items be bundled and rubber-banded together in a bundle no more than 4" wide. Bundles are to be placed in Red Baskets (totes) for sorting at South Central. High priority items can be placed in a Blue Basket and these will be sorted on the truck. The "baskets" are attached lid plastic totes.

Both services are run in-house. They use a combination of 14' box trucks for high volume local routes and extended cargo vans for lower volume, longer distance routes.

In addition, SCLS offers LINK Express service in certain counties in which material is delivered directly to agencies, businesses, educational facilities, and organizations (<http://www.sclsdelivery.info/sclspages/linkexpress.htm>).

The delivery service is funded primarily by participants, which include the University of Wisconsin, the public library systems, technical colleges, correctional institutes, and various state agencies. There is a \$90,000 LSTA subsidy for the public library systems (which accounts for approximately 30 percent of the total delivery costs).

*Preparation of this report included the following phases: Data Collection, Data Analysis, Data Normalization, and Recommendations Development*

## Data Collection

The first step in evaluating the issues affecting library delivery in Illinois was to review the numerous documents that had been collected during the FILC project. All of the parties involved in that process contributed documents to a wiki set up for that purpose. The documents included memos about delivery, RFPs, route information, and an assortment of other useful pieces of information for developing a picture of the issues.

Following review of these documents, many of the people involved in the FILC meetings were interviewed. These interviews helped provide context to the material that had been reviewed and provided additional information about what had happened between then and now. In each interview, the consultant queried the interviewees about their ideas about how to move library delivery forward, what would work for them, and what wouldn't work. The interviews helped plant the seeds for many of the ideas that ultimately turned into recommendations.

*See Appendix C: Summary of Interviews.*

In October 2011, the consultant attended the Illinois Library Association Conference in Rosemont, Illinois, and presented initial observations and shared information on best practices in library delivery. In addition to the presentation, an open meeting was held with several key managers as well as others involved in the day-to-day work of making resource-sharing and delivery happen.

At the time of the conference, the newly formed regions (RAILS and IHLS) were still finalizing administrative matters associated with the consolidations, including transitions in leadership. Each of the delivery services and hubs was still operating autonomously and little or nothing related to significant delivery redesign had been addressed at the regional level.

With new leadership in place (Michael Piper at RAILS and Leslie Bednar at IHLS), the timing of the project was both an advantage and disadvantage. They had a number of other priorities, but were also eager for the results of the study and did their best to supply data. Over the course of several weeks following the conference, the consultant worked with representatives from each region to determine critical information about each sort operation. Specifically, each region was asked to provide:

1. Location (street address) of each sorting hub.
2. Cost of delivery broken down by each location (i.e., former region) with costs broken out for drivers, vehicles (including maintenance), buildings, gas, and sort staff.
3. A short description of what the library staff needs to do to send out items to another library: what needs to be updated (just the ILS or something else), how a routing slip is generated, do they have to write anything, do they have to package anything, do they have to sort anything?
4. Number of routes each delivery service runs, and what time they start and stop (or a schedule for each driver).
5. How many hours are spent sorting each day reported in "person hours" (e.g., two people sorting for two hours is four hours).
6. Number of stops per week made by the delivery system (on average).
7. Number of miles driven per week (on average) made by the delivery system.
8. Number of items delivered last fiscal year.

Both regions did their best to comply with these requests but the information didn't necessarily exist in the format requested. For example, there was no consistent method for counting "items delivered" and the breakdown of costs requested was not readily available. And some information simply wasn't known.

Even though each delivery operation is now under the management of a single regional system, each of the sort operations were still running as they had when they were operated by the former regions. In most cases, each former region had a single hub that was used for sorting, parking the trucks, and for administrative work. PALS is the only former region that had more than one hub; it has three (Coal Valley, Shorewood, and Rockford.) Each of the delivery operations has a culture of its own. They do things differently; they have different packaging and labeling requirements and different expectations of their libraries.

Because of these differences between the delivery operations, the regional representatives and consultant agreed to prepare a survey for libraries to answer. The goal was to get a wide variety of respondents, including some from each of the routes, some from very large public libraries and small rural libraries, some that used the ILDS system, some that got daily service, others that got two- to three-day-per-week service and even some on-demand libraries. And we needed to make sure we included public, academic, community college, school, and special libraries.

*See Appendix D: RAILS Survey Summary and Appendix E: IHLS Survey Summary for more detailed information on responses.*

## Data Analysis

Once the above information was gathered, the process of interpreting the data began. Throughout this review, individuals were queried to clarify or supplement some of the information.

The cost information was the most challenging aspect of the data analysis because any useful cost information has to be put into context. It isn't enough to look at how much money is spent on delivery and how many items are delivered. That simply provides one angle (cost per item). Delivery systems in rural locations with lower volumes will always have a higher cost per item, whereas delivery systems in urban areas with high volumes will have lower cost per item.

One must look at several angles to get an idea of where there may be opportunities for improving a service or reducing costs. In addition to cost per item, it is important to look at cost per mile and cost per stop and cost per location. A stop is defined as a stop, at a specific location, on the delivery route. It may be that one makes five stops per week to one location. Systems that deliver five days per week to all locations will have a smaller per stop cost than services that only deliver once per week to most locations.

In order to evaluate the relative efficiency of each of the aspects of the delivery system and to understand workloads, it is important to look at costs associated with managing and overhead, sorting, and driving. In addition, it is important to look at the workload in the libraries to understand which pieces of work are being done by library staff instead of delivery staff (e.g., sorting materials).

### **Data Normalization**

Two components of the cost analysis required some data normalization. Specifically, how each hub reported delivery volumes was very different. Once this discrepancy was identified, it was important to decide how delivery volume would be defined. In this report, delivery volume is defined as “number of items picked up at each library.” Strictly speaking, delivery volume typically includes material that is both dropped off and picked up at each location; the total volume of material moved by a driver and truck includes both sides of the process. However, in order to evaluate sorting, it was important to know how many items are being handled at the hub and this is represented by the number of items picked up. All items picked up at each library are sorted at the hub and then these same items are delivered. Therefore, for the purposes of this report, we define delivery volume as the number of items picked up at each library.

Sorting also required some normalization. Initially, the regions reported how many person hours were spent sorting material at the hubs. However, it became clear that in some cases, a significant amount of the drivers’ time was also spent sorting on the truck. Therefore, we needed to redefine sorting hours as the total number of hours spent sorting, including the hub and in the trucks.

### **Recommendations Development**

Developing a set of recommendations requires a firm understanding of all the components of an operation, the efficiencies and inefficiencies, and the priorities and culture of the environment. Without understanding the culture, it is possible to make recommendations that simply don’t fit. Therefore, it is important to make sure that a wide range of possible solutions are considered, evaluated, and vetted before deciding upon the final recommendations. And then to choose the recommendations that address the priorities most directly.

This report represents a set of recommendations that have evolved out of the much larger set of possible solutions to a “library delivery” problem. Some possible solutions were winnowed out because they didn’t make sense given the data, and others because they didn’t make sense given the priorities and culture of the Illinois libraries and the various entities that have a stake in the delivery system.

# COMPARISON OF CURRENT DELIVERY COSTS

## Delivery Statistics

Delivery statistics were gathered from the regional systems in order to evaluate the delivery and sort operations and to estimate costs. In every case, this information required a fair amount of effort to provide because each region has only recently taken over management of all of the delivery operations that were run out of the legacy region headquarters.

Table 1 provides a summary of these data elements across all the systems. The following is a description of the key pieces of data that were collected:

- **Items Delivered:** This is the number of items delivered to each library and does not include the number picked up. IHLS data is from FY2011; RAILS reported data that had been collected between October 2010 and the present, and usually included items picked up and delivered. *[See Appendix F: How RAILS Counts Delivery.]* The numbers used here represent just Items Delivered.
- **Miles/Week:** Number of miles run by delivery trucks out of each hub.
- **Service Area:** Consultant's rough estimate of service area based on range of locations serviced by each hub.
- **Locations:** Number of locations serviced including On Demand stops (except DuPage).
- **Cost of Delivery Operation:** Total cost to run the delivery and sort operation, per last available annual report.

**Table 1: Summary of Key Data Elements from Each Region/Hub**

RAILS	Items Delivered	Miles/Week	Service Area (Sq. Miles)	Locations	Stops Per Week	Cost
NSLS (Wheeling)	1,605,000	1664	1200	56	252	\$371,391
DuPage (Geneva)	1,922,678	1098	800	39	161	\$306,386
Alliance (Peoria)	1,047,930	5762	14,000	179	399	\$321,889
Metropolitan (Burr Ridge)	4,484,558	1809	800	88	440	\$487,609
PALS	3,792,951	7928	11,000	182	605	\$806,434
Coal Valley	1,166,169			67	187	\$246,076
Shorewood	1,937,474			45	197	\$287,210
Rockford	689,309			70	222	\$273,148
IHLS	Items Delivered	Miles/Week	Service Area (Sq. Miles)	Locations	Stops Per Week	Cost
L&C (Edwardsville)	1,100,281	3314	4000	127	226	\$284,356
Rolling Prairie (Decatur)	1,021,400	2952	6000	103	181	\$213,805
Lincoln Trails (Champaign)	925,857	2684	6000	98	202	\$273,982
Shawnee (Carterville)	556,312	4984	12000	82	199	\$344,657

## COMPARISON OF CURRENT DELIVERY COSTS

When “per week” data were provided, this was extended into a “per year” number by multiplying by 52 rather than trying to adjust for the actual number of days of delivery runs per year. This allows us to evaluate the cost per item, per stop, per mile driven, and per location to see how the different systems compare.

Using the above data and evaluating it against the annual costs of each regional system, we are able to identify some key indicators of each operation. It is important to look at several different indicators because each item below fluctuates by different conditions. For example, high volume delivery systems that have shorter routes should have a lower “per item delivered rate” (e.g., DuPage, out of Geneva, at \$ .16 per item delivered compared to a lower volume, spread-out delivery operation like Rolling Prairie, out of Decatur, at \$ .21 per item delivered). But this is reversed when you look at “cost per mile driven” because Decatur drivers have many more miles to cover than Geneva drivers.

Similarly, “cost per stop” will be low when a system delivers a large volume of material to a small number of nearby locations like Alliance out of Peoria, but this number will be higher for systems with more locations to serve like PALS.

Systems that provide five-day-per-week delivery like Metropolitan out of Burr Ridge will have a smaller “per stop” cost and higher “per location” cost whereas systems that have more two- to three-day-per-week stops will be the reverse (e.g., Lewis and Clark).

*To see how all of these regions and hubs compare across all of these indicators see Table 2.*

**Table 2: Comparison of Regions/Hubs**

Regions/Hubs	Cost Per Item Delivered	Cost Per Stop	Cost Per Mile Driven	Cost Per Location
<b>RAILS</b>				
Alliance (Peoria)	\$0.31	\$15.51	\$1.07	\$1,798
DuPage (Geneva)	\$0.16	\$36.60	\$5.37	\$7,856
Metropolitan (Burr Ridge)	\$0.11	\$21.31	\$5.18	\$5,541
NSLS (Wheeling)	\$0.23	\$28.34	\$4.29	\$6,632
PALS (all hubs)	\$0.21	\$25.63	\$1.96	\$4,431
<b>IHLS</b>				
L&C (Edwardsville)	\$0.26	\$24.20	\$1.65	\$2,239
Lincoln Trails (Champaign)	\$0.30	\$26.08	\$1.96	\$2,796
Rolling Prairie (Decatur)	\$0.21	\$22.72	\$1.39	\$2,076
Shawnee (Carterville)	\$0.62	\$33.31	\$1.33	\$4,203

## SORTING STATISTICS

To compare sorting, each region or hub provided the hourly wage (including benefits) paid for sorters and estimated the number of person-hours per day spent sorting. RAILS provided a “blended hourly rate” that took into account several wage categories because several categories of workers are involved in sorting, including sorters, drivers, and the delivery manager. While sorters are paid \$8.99/hour, the blended rate used (as instructed) was \$12.68. Although the salary for sorters is \$12.68, IHLS provided a different hourly rate at each hub for similar reasons (sorters and drivers both do some sorting) as follows:

- Edwardsville: \$13/hour
- Decatur: \$15/hour
- Champaign: \$15/hour
- Carterville: \$20/hour

These numbers were used to evaluate the actual cost of sorting at each hub. (All PALS hubs were combined because data were not available showing the number of sort hours spent at each hub.)

A well-trained sorter working in an optimized environment can sort 500 pieces per hour (PPH) throughout their eight-hour shift (this figure is based on consultant’s experience evaluating other library environments). In order to determine how many hours should be spent sorting the delivery volume at each hub or region, we divide the Items Delivered by 500. Multiplying that number of hours by the sorter’s hourly rate gives us the target cost of the sort operation. We don’t use blended rates because in an optimized sort environment, only sorters are used for sorting. There should be no sorting on the truck or in other locations where conditions are not optimal and where the “sorter” is more expensive (e.g., the driver as sorter). Using the formula below, each of the hub’s sorting costs was compared against the Target Cost of Sorting.

### How Target Cost of Sorting Is Calculated

$$\begin{aligned} \text{Number of Items That Can Be Sorted Per Person/Per Hour (PPH)} &= 500 \\ \text{Items Delivered}/500 &= \text{Hours Needed to Sort} \\ \text{Hours Needed to Sort} \times \text{Sorter Hourly Rate} &= \text{Target Cost of Sorting} \end{aligned}$$

Table 3 below provides a summary of the Costs of Sorting at each hub and what the Target Cost is for that hub based on Items Delivered. Based on this analysis, there is room for improvement in how sorting is performed in all locations except Geneva, Burr Ridge, and Decatur, which appear to be exceeding the 500 PPH target sort rate.

However, it may be that there is room for improvement there as well. If libraries using the Geneva hub do a lot of bundling of material, then the hub’s PPH numbers would appear elevated. In such cases, the libraries are pre-sorting the material for the sorters and that sorting effort isn’t accounted for. According to at least one survey response, Geneva libraries “sort into specific library bags” so this may very well explain the high PPH number. In all likelihood, there is room for improvement at all of the sort centers.

**Table 3: Comparison of Sorting by Region/Hub**

Regions/Hubs	Current Estimated Rate Paid for Sorting	Cost of Sorting	Target Cost of Sorting	Potential Savings
<b>RAILS</b>				
Alliance (Peoria)	\$12.68	\$95,607	\$18,842	\$76,765
DuPage (Geneva)	\$12.68	\$16,484	\$34,570	<\$18,086>
Metropolitan (Burr Ridge)	\$12.68	\$79,123	\$80,632	<\$1,509>
NSLS (Wheeling)	\$12.68	\$39,562	\$28,858	\$10,704
PALS (all hubs)	\$12.68	\$79,123	\$68,197	\$10,926
<b>IHLS</b>				
L&C (Edwardsville)	\$13	\$50,700	\$27,903	\$22,797
Lincoln Trails (Champaign)	\$15	\$39,000	\$23,480	\$15,520
Rolling Prairie (Decatur)	\$15	\$19,500	\$25,903	<\$6,403>
Shawnee (Carterville)	\$20	\$52,000	\$14,108	\$37,892

## OVERALL EFFICIENCY

### Overall Efficiency Based on Delivery and Sort Statistics

Even though it is impossible to be sure about the efficiency of each hub's sort operation, it is worthwhile using what we do know to do an overall efficiency evaluation of all the delivery systems and hubs. This helps us focus on particular operations that are in need of more attention or which may be candidates for moving or eliminating.

Table 4 (below) provides a summary of each of the key efficiency indicators including sorting. Those sorting operations that had the most potential for improvement are presumed to be the least efficient (again, based on the data available). Comparing each of these indicators equally allows us to rank each operation in order of most to least efficient. According to this data, the Decatur hub formerly serving Rolling Prairie is the most efficient overall. It ranked #2 in per location cost and #3 in per item and per stop cost. It was the second most efficient sorting operation (based on above data). In contrast, the Carterville hub had the second highest per item and per stop cost and was second to last in sort efficiency. It was #5 in per location cost. It is worth noting that the overall efficiency ranking does not change much when you exclude sorting. Decatur is still #1 and Carterville is still #9.

**Table 4: Comparison of each delivery/sort operation according to efficiency indicators**

	Cost Per Item Delivered	Cost Per Stop	Cost Per Mile Driven	Cost Per Location	Potential Sort Savings	Per Item Rank	Per Stop Rank	Per Location Rank	Sort Rank	Overall Efficiency Rank
Rolling Prairie (Decatur)	\$0.21	\$22.72	\$1.39	\$ 2,076	<\$6,403>	3	3	2	2	1
Metropolitan (Burr Ridge)	\$ 0.11	\$21.31	\$5.18	\$5,541	<\$1,509>	1	2	7	3	2
Alliance (Peoria)	\$0.31	\$15.51	\$1.07	\$1,798	\$76,765	7	1	1	9	3
L&C (Edwardsville)	\$0.26	\$24.20	\$1.65	\$2,239	\$22,797	5	4	3	7	4
PALS	\$0.21	\$25.63	\$1.96	\$4,431	\$10,926	3	5	6	5	5
DuPage (Geneva)	\$0.16	\$36.60	\$5.37	\$7,856	<\$18,086>	2	9	9	1	6
Lincoln Trails (Champaign)	\$0.30	\$26.08	\$1.96	\$2,796	\$15,520	6	6	4	6	7
NSLS (Wheeling)	\$0.23	\$28.34	\$4.29	\$6,632	\$10,704	4	7	8	4	8
Shawnee (Carterville)	\$0.62	\$33.31	\$1.33	\$4,203	\$37,892	8	8	5	8	9

## SORTING COSTS

### Delivery vs. Sorting Costs

Each region was asked to provide information about the costs associated specifically with sorting. These costs were to take into account salaries and benefits, and vehicle-related expenses. In addition, indirect costs were to be included. For example, administrative staff is needed to handle payroll and to run the regional system and some percentage of these administrative salaries should be allocated to sorting. In addition, costs associated with the building used for sorting should also be included. Each region was asked to allocate a percentage of these indirect regional costs to sorting for the purpose of separating the cost of delivery from the cost of sorting.

Juliette Douglas of IHLS provided the following formula for allocating the costs between sorting and delivery.

### IHLS Delivery and Sorting Costs

**Table 5: IHLS Delivery and Sorting Costs FY2011**

	Delivery and Sorting Costs				
Predecessor System	ShLS	LTLS	RPLS	LCLS	
Delivery Hub	Carterville	Champaign	Decatur	Edwardsville	
<b>Direct Delivery Expenses</b>					
Salaries	\$155,633	\$122,938	\$86,430	\$147,286	
Benefits	\$67,065	\$56,090	\$41,861	\$30,530	
Gas & Oil	\$43,537	\$33,640	\$25,328	\$30,673	
Vehicle Repairs and Maintenance	\$8,721	\$10,035	\$3,767	\$12,220	
Other (insurance, postage, supplies)	\$13,383	\$6,921	\$15,389	\$19,058	
<b>Direct Delivery Expenses Subtotal</b>	<b>\$288,339</b>	<b>\$229,624</b>	<b>\$172,775</b>	<b>\$239,767</b>	<b>\$930,505</b>
Building and Grounds Expenses	\$9,434	\$2,978	\$3,644	\$6,839	\$22,895
Projected Administrative Expenses	\$46,884	\$41,380	\$37,386	\$37,750	\$163,400
<b>IHLS Delivery Expenses Total*</b>	<b>\$344,657</b>	<b>\$273,982</b>	<b>\$213,805</b>	<b>\$284,356</b>	<b>\$1,116,800</b>
	*Includes sorting, counting of materials, ILDS preparation; and G/N associate services (at Edwardsville Office only)				
<b>Direct Delivery Expenses Notes:</b>	Amounts listed in this spreadsheet were gathered from a combination of the FY11 audits and FY11 Annual Reports.				
<b>Building and Grounds Notes:</b>					
Percent of Building Used for Delivery	25%	20%	7%	9%	
Total Building and Grounds/Includes liability and property insurance	\$37,734	\$14,890	\$52,059	\$75,988	
Delivery Building Cost	\$9,434	\$2,978	\$3,644	\$6,839	
Percent of Delivery Building Cost to Allocate to Sorting	15%	13%	5%	4.50%	
<b>Projected Administrative Expenses Dedicated to Delivery</b>	<b>\$46,884</b>	<b>\$41,380</b>	<b>\$37,386</b>	<b>\$37,750</b>	<b>\$163,400</b>

## SORTING COSTS

**Table 6: IHLS Sorting Only Costs FY2011**

	IHLS Sorting Costs				
Predecessor System					
Delivery Hub	ShLS	ITLS	RPLS	LCLS	Total Cost for Sorting
	Carterville	Champaign	Decatur	Edwardsville	
<b>Direct Delivery Expenses</b>					
Salaries	\$36,729	\$40,447	\$24,719	\$68,783	
Benefits	\$24,143	\$18,454	\$11,972	\$14,258	
Gas & Oil	\$0	\$0	\$0	\$0	
Vehicle Repairs and Maintenance	\$0	\$0	\$0	\$0	
Other (insurance, postage, supplies)	\$13,383	\$6,921	\$15,389	\$19,058	
<b>Direct Delivery Expenses Subtotal</b>	<b>\$74,256</b>	<b>\$65,821</b>	<b>\$52,080</b>	<b>\$102,098</b>	<b>\$294,255</b>
Building and Grounds Expenses	\$5,660	\$1,936	\$2,603	\$3,419	\$13,618
Projected Administrative Expenses	\$13,873	\$12,244	\$11,063	\$11,170	\$48,350
<b>IHLS Delivery Expenses Total</b>	<b>\$93,789</b>	<b>\$80,001</b>	<b>\$65,746</b>	<b>\$116,688</b>	<b>\$356,224</b>
<b>Building and Grounds Notes:</b>					
Percent of Building Used for Delivery	15%	13%	5%	4.5%	
Total Building and Grounds/Includes liability and property insurance	\$37,734	\$14,890	\$52,059	\$75,988	
Delivery Building Cost	\$5,660	\$1,936	\$2,603	\$3,419	
Percent of Delivery Building Cost to Allocate to Sorting					

## SORTING COSTS

### RAILS Delivery and Sorting Costs

In the case of RAILS, the total costs for delivery and sorting were provided by the regions but the percentage of administrative and building costs have been estimated by the consultant in order to estimate the Sorting Only Costs below.

**Table 7: RAILS Delivery and Sorting Costs FY2011**

	Delivery and Sorting Costs							
Predecessor System	ALS	DLS	MLS	NSLS	PALS			
Delivery Hub	Peoria	Geneva	Burr Ridge	Wheeling	Coal Valley Rockford Shorewood	Coal Valley	Rockford	Shorewood
Direct Delivery Expenses	\$159,515	\$158,688	\$296,472	\$204,200	\$402,893	\$112,666	\$139,920	\$150,307
Salaries								
Benefits (30% of Salaries)	\$20,077	\$47,606	\$62,242	\$57,516	\$77,063	\$24,584	\$24,402	\$28,077
Gas & Oil	\$50,113	\$15,367	\$34,001	\$22,814	\$85,017	\$28,339	\$28,339	\$28,339
Vehicle Repairs and Maintenance	\$7,709	\$14,689	\$4,992	\$5,293	\$30,511	\$10,170	\$10,170	\$10,170
Other (insurance, postage, supplies)	\$13,007	\$6,524	\$5,312	\$6,043	\$15,877	\$	\$	\$
<b>Direct Delivery Expenses Subtotal</b>	<b>\$250,421</b>	<b>\$242,874</b>	<b>\$403,019</b>	<b>\$295,866</b>	<b>\$611,361</b>			
Building and Grounds Expenses	\$12,377	\$3,611	\$24,689	\$15,624	\$15,370	\$5,118	\$9,554	\$6,142
Projected Administrative Expenses	\$59,091	\$59,901	\$59,901	\$59,901	\$179,703	\$59,901	\$59,901	\$59,901
<b>RAILS Delivery Expenses Total</b>	<b>\$321,889</b>	<b>\$306,386</b>	<b>\$487,609</b>	<b>\$371,391</b>	<b>\$806,434</b>	<b>\$246,076</b>	<b>\$273,148</b>	<b>\$287,210</b>
<b>Direct Delivery Expenses Notes:</b>	Amounts listed in this spreadsheet were gathered from a combination of the FY11 audits and FY11 Annual Reports.							
<b>Building and Grounds Notes:</b>								
Percentage of Building Used for Delivery	18%	4%	15%	19%	15%	15%	28%	18%
Total Building and Grounds/Including liability and property insurance	\$68,762	\$90,280	\$164,591	\$82,232	\$102,467	\$34,122	\$34,122	\$34,122
Delivery Building Cost	\$12,377	\$3,611	\$24,689	\$15,624	\$15,370	\$5,118	\$9,554	\$6,142
Percentage of Delivery Building	54%	100%	45%	24%	66%	10%	100%	10%
Sort Related Building Cost	\$6,684	\$3,611	\$11,110	\$3,750	\$10,144	\$512	\$9,554	\$614
<b>Projected Administrative Expenses</b>								
Hourly "Blended" Rate (wages + benefits) Paid to Sort Staff	\$12.68	\$12.68	\$12.68	\$12.68	\$12.68	\$12.68	\$12.68	\$12.68
	Amounts listed in this spreadsheet were gathered from FY12 administration staff salaries with 30% estimated benefits for areas such as Finance, Human Resources, and Information Technology. The total amount was then allocated across the four RAILS service areas (Delivery, Local Library System Automation Programs, Talking Books, and Administration). The 25% for Delivery was equally allocated across the seven Delivery hubs to arrive at the projected administrative expenses.							

## SORTING COSTS

**Table 8: RAILS Sorting Only Costs FY2011**

	Sorting Only Costs							
Predecessor System	ALS	DLS	MLS	NSLS	PALS			
Delivery Hub	Peoria	Geneva	Burr Ridge	Wheeling	Coal Valley Rockford Shorewood	Coal Valley	Rockford	Shorewood
<b>Direct Delivery Expenses</b>								
Salaries	\$39,879	\$39,672	\$74,118	\$51,050	\$100,723	\$28,167	\$34,980	\$37,577
Benefits (30% of Salaries)	\$5,019	\$11,902	\$15,561	\$14,379	\$19,266	\$6,146	\$6,101	\$7,019
Gas & Oil	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vehicle Repairs and Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other (insurance, postage, supplies)	\$13,007	\$6,524	\$5,312	\$6,043	\$15,877	\$5,239	\$5,239	\$5,239
<b>Direct Delivery Expenses Subtotal</b>								
Building and Grounds Expenses	\$6,684	\$3,611	\$11,110	\$3,750	\$10,144	\$512	\$9,554	\$614
Projected Administrative Expenses	\$17,136	\$17,371	\$17,371	\$17,371	\$52,114	\$17,371	\$17,371	\$17,371
<b>RAILS Delivery Expenses Total</b>	<b>\$81,725</b>	<b>\$79,080</b>	<b>\$123,472</b>	<b>\$92,593</b>	<b>\$198,124</b>	<b>\$57,435</b>	<b>\$73,245</b>	<b>\$267,821</b>
<b>Notes:</b>	Percent Direct Delivery Expenses Allocated to Sorting (similar to IHLS at most hubs)							0.25
	100% Other applied to Sort (to match IHLS)							
	Sort Related Building Cost from RAILS percentages provided							
	Percent Admin. Costs Allocated to Sorting (matches IHLS)							0.29

## SORTING COSTS

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Based on the above calculations, we can develop a cost estimate of the costs associated with delivery versus the costs associated with sorting. This is necessary in order to evaluate the option of moving to an outsourced delivery model while continuing to provide sorting in-house.

**Table 9: Summary of Sorting vs. Delivery Costs FY2011 — all hubs**

Hub	Sorting Costs	Delivery Cost	Total Cost
NSLS (Wheeling)	\$92,593	\$278,798	\$371,391
DuPage (Geneva)	\$79,080	\$227,306	\$306,386
Alliance (Peoria)	\$81,725	\$240,164	\$321,889
Metropolitan (Burr Ridge)	\$123,472	\$364,137	\$487,609
PALS	\$198,124	\$608,310	\$806,434
L&C (Edwardsville)	\$116,688	\$167,668	\$284,356
Rolling Prairie (Decatur)	\$65,746	\$148,059	\$213,805
Lincoln Trails (Champaign)	\$80,001	\$193,981	\$273,982
Shawnee (Carterville)	\$93,789	\$250,868	\$344,657

# GOALS AND OBJECTIVES OF A NEW DELIVERY SYSTEM

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To develop a delivery service model for Illinois, there needs to be agreement on basic goals; the following statements were developed based on interviews and conversations with the various stakeholders. As part of the review process of this report, it is assumed that these will be reviewed and adopted as revised by the affected parties.

## **Objective 1: A Sustainable Delivery System That Provides the Best Service Possible for Every Illinois Library and Its Users, Regardless of Library Type, Location or Size.**

In order to meet this objective, several terms will need to be defined. For example, what is sustainable? How much could/would libraries contribute if state funding was reduced or eliminated? What do we mean by the best service possible? And would different libraries define “best” versus “minimally acceptable” service? In talking with staff from academic libraries, large suburban libraries, school libraries, and small rural libraries it became clear that there were different definitions of what type of service would be either minimally acceptable or optimal for each.

Put another way, it would be unwise to develop a delivery model that provides exactly the same service to each library because the libraries don’t want or need exactly the same thing from their delivery service. For example, daily delivery is critical to many libraries for varying reasons. Perhaps they don’t have room to store all the material that accumulates over the course of a day. Or, perhaps their patrons require a fast enough turnaround that getting delivery service just two or three days a week would result in a generally unacceptable wait time.

What each library would/could afford to pay for delivery service also varies. And while this should be taken into account, it is important to recognize that all the participating libraries are interrelated. So the library whose patrons require a short turnaround time might consider it a worthwhile investment to get five-day-per-week delivery, but if they borrow items from libraries that only get two-day-per-week service, that will limit availability from that source, meaning the new delivery service needs to address issues that could reduce the value of the system overall.

## **Objective 2: In Defining “Best Possible Service,” Account for the Differing Needs of the Libraries Particularly as It Relates to Delivery Volume, Available Space, Staffing, and Patron Turnaround Requirements.**

The factors that define delivery service quality include some elements that are important to every library. For example, every library wants a delivery service with the following characteristics:

1. Items are sorted accurately 99.9% of the time
2. Totes must be delivered to the right location 99.9% of the time
3. All items/totes prepared for outgoing delivery are always picked up
4. Couriers are professional, courteous, and trustworthy

Once we move beyond these four characteristics, however, there is more variety about what is important. For example, only some of the following requirements would apply to libraries depending on their particular circumstances:

1. Deliveries occur according to set schedule (e.g., within thirty minutes of a specified delivery window)
2. Deliveries occur five days per week
3. Number of items/totes delivered never exceeds X number
4. Library staff do not have to presort material
5. Library staff do not have to use third-party software to enter each item into delivery
6. Library staff do not have to label each item
7. Incoming holds and returns are delivered in separate totes
8. All items in a tote can be batch checked in

## **Objective 3: Leverage the Existing Delivery Resources to Develop a Coordinated, Complementary Set of Services That Efficiently Address the Differing Needs of Illinois Libraries.**

First it is important to recognize there have already been significant investments made by the state regional systems, Local Library System Automation Programs (LLSAP), and individual libraries in the current delivery environment. Rather than developing a delivery model from scratch, it is important to leverage these rich resources and ensure that they complement rather than compete with one another. This is an opportunity to think differently about how services are delivered by each of the key agencies: RAILS, IHLS, CPL, and ILDS and to develop a coordinated set of services to be offered by these entities to more efficiently address the differing needs of member libraries.

Second, it seems likely that, at least in the immediate future, there will be additional investment from collective/cooperative/shared sources, whether it is LSTA or other state-level funding. Such resources need to be used in ways that are acceptable to all parties and create the greatest benefit for library patrons.

### Establish Illinois Logistics Coordinator

Establishing a statewide Logistics Coordinator is one way to significantly improve the efficiency and coordination of delivery operations serving Illinois libraries (especially public libraries). Some of the specific responsibilities recommended for the new Logistics Coordinator include the following:

- Create statewide standards
- Share best practices and provide ergonomics guidelines
- Track delivery volume and performance of delivery services
- Provide ongoing monitoring and evaluation of delivery services
- Guide implementation of recommendations adopted from this report

Many of the recommendations included in this report will require a significant amount of planning and project management. Having a point person designated to that purpose on behalf of all the delivery operations will assist in moving the process with minimal disruption to the existing delivery operations.

In addition, some of the recommendations contained here need to be repeated in various locations, so having one person learn how to handle some key tasks will make the process more efficient. Some of these repeating tasks include: selling vehicles and supplies, purchasing new containers and warehouse equipment needed for sorting, working with ILS vendors to get routing slips to automatically print, working with ILS vendors to support label-less sorting, and optimizing sort facilities using Lean methodologies. Rather than having different people in each region learn how to solve these same problems, it would be more efficient to have one person learn an approach that works and replicate it.

Another job for the Logistics Coordinator is to continue to provide the meta-analysis of the delivery operations. The data included in this report has been provided by RAILS and IHLS representatives and is believed to be accurate. But because much of these data are just being developed, it will be particularly important to continually evaluate the recommendations against new data as they become available. Undoubtedly, adjustments will need to be made and course corrections will be required. Having a point person responsible for evaluating delivery data at this macro level will help support each of the individual regions and ensure that the changes being implemented make sense for the Illinois delivery system as a whole.

Sharing a Logistics Coordinator will also make it possible to share other resources across all the systems. For example, one recommendation in this report is to use route optimization software to ensure that delivery routes are optimized. This is not a one-time task. It is an ongoing process that will change as hubs are relocated, delivery volumes change, vehicles are changed, and new libraries are added or removed from the services. Purchasing one copy of this type of software for the state and training someone to be an expert user of that software would benefit all the delivery systems.

Although delivery services are run out of hub locations that are now associated with each region, the fact is that resource-sharing beyond each shared ILS is a statewide system. OCLC WorldCat Resource Sharing (WCRS) is the tool that supports interlibrary loans and WCRS doesn't necessarily operate with respect to regional or delivery system borders. In fact, material can be shared between regions as well as between ILDS libraries and libraries on the regional delivery systems. Delivery systems must be designed to support resource-sharing systems, not vice versa. Adding a position to oversee delivery operations from the statewide perspective will help ensure that this happens.

### Move IHLS to Shared ILS

IHLS has received a proposal for a shared ILS that would service the entire region and is moving in that direction. This initiative will benefit IHLS patrons by bringing all of the resources from each IHLS library into one catalog that is easy for patrons and staff to use. These recommendations strongly support this step because it will improve access to more materials for patrons, save costs for IHLS, and eliminate the labor-intensive ILL workflow that is necessary using ILL software when requesting and managing requests between each IHLS shared system. For more on the benefits of sharing a library system, see the White Paper, "Why a Shared Library System Makes Sense."<sup>6</sup>

The other benefit to moving to a single shared system is the opportunity created to optimize the sort operation, which should be consolidated at one or two locations; this is discussed in detail later in this section.

Moving to a shared ILS will also completely change the delivery patterns and render the current sorting operations obsolete. Items within a shared ILS tend to stay within the range of libraries that are part of that shared system. For example, as long as Rolling Prairie was running a shared ILS, Horizon, it made sense to sort the Rolling Prairie material in a central hub (Decatur). But as soon as Horizon is replaced by the new IHLS shared system, the hub will no longer have a defined subset of material that moves between libraries in that geographic area. The same goes for Lincoln Trails (Horizon) and Lewis & Clark (Millennium) and Shawnee (Dynix). Therefore, it will be important to redefine delivery routes. Optimizing routes is discussed later in this section.

### Consolidate RAILS into Fewer Shared ILSs

Just as IHLS will benefit from moving to a shared ILS, so too would RAILS. However, there appears to be little interest on the part of the RAILS stakeholders to take such a step. Nonetheless, it is recommended that some degree of consolidation be pursued wherever possible (e.g., combining systems using the same vendors, moving some stand-alone libraries to a consortial ILS, etc.) Evergreen is a very robust consortial system, making it possible to share the same hardware platform and database for stand-alone libraries as well as some of the existing shared ILSs.

One of the challenges of moving to a shared ILS is the need to coordinate circulation and resource-sharing policies. Evergreen, a shared ILS for consortia, supports a high degree of independence for the libraries sharing the software. Replacing an existing shared ILS product with Evergreen would enable the existing consortia to continue to function as they do now even if new libraries were brought onto the shared system. This would create an opportunity for more libraries to benefit from being on a shared system without necessarily changing the resource-sharing arrangements of the original members.

Evergreen could also be used for the existing stand-alone libraries to give these libraries a way to improve their resource-sharing options without committing to being part of a traditional shared ILS. The Evergreen relationships can be more finely tuned, affording stand-alone libraries the independence they need while creating opportunities for patron-initiated requesting. The software can be configured to support sharing in an expansive way, or more granularly, as determined by each library.

<sup>6</sup> See *Why A Shared Library System Makes Sense* (Lori Ayre, 2011), available from [http://galecia.com/sites/default/files/2012\\_Ayre\\_Why\\_A\\_Shared\\_Library\\_System\\_Makes\\_Sense.pdf](http://galecia.com/sites/default/files/2012_Ayre_Why_A_Shared_Library_System_Makes_Sense.pdf)

### Optimize Sort Operations

Every hub would benefit from a systematic process of evaluating and optimizing their sorting operation. As noted earlier, it is widely accepted that a sustainable sort speed for manual sorting is 500 pieces per hour (PPH) per worker. Several of the systems currently fall short of this target sort speed, and it is possible that none of them are, after you take into account the presorting and bundling that inflates the sort speed numbers (by not taking the sorting hours of the library staff into account).

#### (1) Easy to Implement Improvements

There are some easy-to-implement steps that should be taken immediately to improve the manual sort operations, including:

- Apply Lean methodologies to reduce waste (reduce touches, wait time, distance sorters move while sorting, define locations and aisles, etc.).
- Utilize visual management techniques to clean up, sort, standardize, label, and measure the sort operation.
- Evaluate opportunities for using industry-standard, but inexpensive, equipment such as: adjustable tables, hand trucks, pallets, passive conveyors, and pallet trucks.
- Organize sorting area to optimize sort speed within pods based on delivery patterns (e.g., shared ILS material is sorted in one pod).
- Eliminate, or at least reduce, presorting done in libraries.

#### (2) Label-Less Sorting and Sort-to-Light

After optimizing sort operations and reducing the presorting work in the libraries, the sort operations can be dramatically improved with the implementation of sort-to-light sorting using a SIP2 connection to shared ILS to eliminate the need for routing slips in the workflow.

This system of sorting relies on the ILS to identify where the item is going rather than relying on a paper routing slip. Sort personnel simply scan the bar code on the item (just like library staff do during check-in and check-out), and the ILS reports back the destination library for that item. This causes a light to shine above a specific tote arranged around the person doing the sorting so they know where to place the item. After placing the item in the tote, the sorter presses a button registering that they have placed the item there, and they are on to the next item in their stack.

While sort-to-light isn't always as fast as manually sorting with routing slips, it is much more accurate and, most importantly, it provides many benefits to library staff including:

- Eliminates the need for any presorting or bundling in the libraries
- Reduces staging areas needed in libraries
- Eliminates need for routing slips, saving time, paper, and money
- Allows for additional granularity in sorting (e.g., holds and returns can be sorted into separate totes)

Sort-to-light can be implemented in any shared ILS environment as well as within single ILS environments with multiple branches such as Chicago Public Library.

#### (3) Tote Manifesting and Batch Level Check-In of Totes

Another way to optimize the sort operation is to create a system of tote manifesting. This could be done in combination with the implementation of the sort-to-light system. Tote manifesting refers to a process of building a manifest of each item that goes into each tote. Each tote is assigned its own bar code number, and each item inside the tote is associated with that tote's bar code number. When the full tote is delivered to the library, they can simply scan the tote's bar code instead of scanning each individual item inside the tote.

This generally works very well for returns that don't require additional processing. It is not very useful for holds because most libraries automatically print out the hold slip when the item is scanned at the receiving library; that slip is placed in the item before it is placed on the self-service hold shelf. While it would be possible to do this same workflow as a batch process, the hold slips tend to create a mess that makes it more trouble than it is worth. However, it can be a worthwhile approach for reducing the handling required for returns and essentially eliminating the need for items to sit in totes or carts waiting to be checked in.

Tote manifesting is something to look into following the prior recommendations; it may provide additional benefits, but is a lower priority than the other recommendations related to optimizing the sort operation.

### “Modified ILDS Delivery Service”

The existing ILDS service provides a proxy for potential outsourcing, given the terms of the current contract. Leveraging the efficiency of the ILDS drivers and trucks with the sorting service provided by the regions would provide a more efficient and suitable delivery service for public libraries than what is available now. “Modified ILDS Delivery Service” is a hybrid solution that would bring the benefit of daily service to more public libraries without requiring them to do the presorting currently expected of the academic libraries.

The workflow would involve ILDS picking up totes containing unsorted items from each library. These totes would be delivered to the regional hub for sorting (ideally via the label-less sorting system described above). The next day, ILDS would pick up all the sorted material and deliver it to the libraries.

Combining the two operations in this way will allow all Illinois libraries utilizing Modified ILDS service to receive five-day-per-week service while reducing the workload in these libraries.

ILDS provides delivery to all academic libraries five days per week. Based on interviews and the surveys conducted of a small subset of libraries in each region (which included libraries on the ILDS service), it appears that academic libraries are satisfied with the service. The service is provided by Lanter Delivery, whose contract was renewed in 2011 with an option to expand. The terms of the new contract state that new locations can be added at a cost of \$13/stop and that each new location must receive five stops per week for an annual cost per location of \$3,380.

The per stop/per location cost looks attractive and could produce significant savings in RAILS. However, many public libraries would not be happy with Standard ILDS service because of the sorting and tagging requirements for preparing outbound material. Specifically, with the Standard ILDS service, each library must

1. Track the total number of items being sent to each destination
2. Enter the number of items for each destination into the ILDS system online
3. Print routing slips
4. Place items in their proper bag (one [or more] per location)
5. Cut routing slips down to size and slide them into the “dog tags” of each bag
6. Secure bags

In preparing the bags this way, the burden of item-level sorting is transferred to the libraries; delivery staff does only a bag-level sort. Another impediment for some libraries relates to space inside the library. Bags don't stack neatly in a corner somewhere, and it is impractical for many libraries to allocate space to the numerous library-specific bags that must be ready for pickup using Standard ILDS delivery. That said, one of the benefits of the ILDS system is that each bag is tracked and the volumes going in and out of each location are recorded by virtue of the software used to generate routing slips. Delivery accuracy is excellent because standardized tags are easy to read. Another benefit is that next-day delivery is guaranteed for all participating libraries.

### Explore Modified ILDS Delivery Service in RAILS

Implementing “Modified ILDS Delivery Service” at all locations within RAILS except Peoria (Alliance) would save over \$240,000 per year in delivery expenses. This is calculated by taking the costs associated with sorting only (see Table 6 and Table 8 in the preceding section) and adding ILDS delivery costs to all those locations (\$3,380 annually per location). For extremely low volume locations, RAILS could provide a dedicated “on-demand” route, operated either in-house or outsourced.

Each location currently being served would receive five-day-per-week delivery under this plan (which is not currently the case). And because the sorting is to be done by personnel in the regional hubs, the in-library labor would be reduced. Once label-less sorting is implemented in the sort centers, the benefits to library staff will be dramatic: no routing slips to print out, efficient stacking of mixed totes for staging, five-day-per-week service, and next-day delivery at all locations.

Alliance is the only system that would not reduce its costs by moving to a Modified ILDS system (in place of operating its own internal delivery service). In the case of PALS, which has three hubs, the savings at Shorewood exceed the additional costs incurred at the other two hubs; therefore it is recommended that they convert to Modified ILDS where all members will benefit from the daily service and reduced labor.

Based on the data, replacing the in-house delivery service with Modified ILDS service at Alliance libraries would cost significantly more money. In addition, Alliance members already receive five-day-per-week service. Since the Peoria hub services libraries on a shared ILS, it is important to keep this group of libraries on the same delivery and sorting system. Therefore it is not recommended that the services currently provided out of the Peoria hub be replaced by Modified ILDS service. However, given the huge discrepancy in costs (which suggest that Alliance is extremely efficient compared to all other delivery services), these data should be reviewed.

## RECOMMENDATIONS

**Table 10: Projected savings from converting RAILS to Modified ILDS Delivery with sorting at hubs (except Alliance/Peoria)**

Legacy Region (Hub Location)	Current Delivery Cost	Projected Modified ILDS Cost	Total Cost
NLS (Wheeling)	\$371,391	\$281,873	\$371,391
DuPage (Geneva)	\$306,386	\$210,900	\$306,386
Alliance (Peoria)	\$321,889	\$686,745	\$321,889
Metropolitan (Burr Ridge)	\$487,609	\$420,912	\$487,609
PALS (Coal Valley)	\$246,076	\$283,895	\$806,434
PALS (Shorewood)	\$287,210	\$219,921	\$284,356
PALS (Rockford)	\$273,148	\$309,845	\$213,805
<b>Projected Savings excluding only Alliance (Peoria)</b>	<b>\$80,001</b>	<b>\$193,981</b>	<b>\$273,982</b>

The projected savings do not include the additional income that will be generated from the sale of the vehicles which will no longer be needed at any of the hubs except Peoria.

For IHLS, Modified ILDS Service did not prove to be a viable option in terms of cost. See Table 11 for a comparison of those costs.

**Table 11: Chart showing the costs (rather than savings) projected for converting IHLS regions to Modified ILDS Delivery with sorting at hubs**

Legacy Region (Hub Location)	Current Delivery Cost	Projected Modified ILDS Cost	Projected Savings in Annual Operating Costs to Switch to Modified ILDS Service
Shawnee (Carterville)	\$344,657	\$367,309	<\$22,652>
Lincoln Trails (Champaign)	\$273,982	\$399,962	<\$125,980>
Rolling Prairie (Decatur)	\$213,805	\$409,909	<\$196,104>
Lewis & Clark (Edwardsville)	\$284,356	\$545,928	<\$261,572>
<b>Projected savings (&lt;cost&gt;) of converting IHLS to Modified ILDS Delivery</b>			<b>&lt;\$606,308&gt;</b>

## Reduce Overall Number of Hubs

### (1) RAILS

Moving more libraries onto fewer shared ILSs and outsourcing the delivery to ILDS would make it possible to shut down several of the RAILS hubs used for sorting. Even without moving to shared ILSs, it should be possible to reduce the number of facilities; it is recommended that RAILS evaluate the possibilities of doing so as soon as possible. Based on implementing the recommendations in this study, it may be possible to eliminate all of the hubs except Burr Ridge (headquarters) and Peoria (servicing Alliance).

The need for “hubs” is strongly dependent on how many different shared ILSs there are and how delivery routes are configured. While it is important that all libraries on a shared ILS have their material sorted in one location, it is not necessary to restrict the sorting of material at one location to only one shared ILS. In other words, a single hub can be configured to handle the sorting requirements of more than one shared ILS. To accomplish this, the sort facility must be big enough to handle sorting pods for each shared ILS or there must be enough time to do the sorts in “waves” (e.g., sort all of the material from one shared ILS first, followed by all the material from another shared ILS).

Once delivery responsibility is transferred to ILDS drivers, hubs won't need to be physically located near the libraries whose material is being sorted. Unlike the current routes which are designed around each LLSAP for the purposes of getting both delivery and sorting service, the new routes will be designed around a larger universe of Lanter customers (the contractor providing ILDS delivery service). It will be Lanter's job to define the routes such that they can pick up all material from RAILS libraries and get it to the RAILS hub (or hubs) by a designated time. RAILS will need to coordinate the delivery of material to their sorting facility with their sorting operation to ensure that material is sorted and ready for the morning pickup by ILDS/Lanter staff.

The beauty of using a vendor for delivery is that the customer can define its service requirements for the contractor and pay for that service. This is in contrast to the current system of defining delivery routes based on a fixed set of resources including trucks, drivers, and time restrictions.

### (2) IHLS

If possible, it is recommended that IHLS redesign its delivery routes using only two sorting hubs: one in the south (possibly Edwardsville) and one in the north (possibly Decatur.) The best way to determine whether this is possible is to use route optimization software. In order to use route optimization software, however, certain changes need to be made. The volume of material moving in and out of each IHLS library must be known. This allows the software to predict when the truck becomes full. Standardized containers must be used for the same reason. In order to define an optimal route for a vehicle, one must know its capacity in weight and volume. In the case of library material, volume is usually the limiting factor.

If a library picks up 100 items per day (using high volume days) in 6 totes, the goal is to ensure that the truck will always have room for those six totes. Another library might send out 200 items. However, it doesn't necessarily mean the second library has twice the volume because it depends on how they arrange those 200 items. It may be that those 200 items fit into only seven totes. Therefore, before beginning work with route optimization software, it is important to standardize on containers as well as presorting practices so that each location can specify its maximum number of items for pickup and take-away each day.

The containers are what take up the room (not the “item”), therefore the volumes must be defined in “containers.” Having lots of different containers makes it impossible to predict when a truck will be full, so standardizing on a specific container is important (see “Standardize at the State Level” later in these recommendations). Although ILDS uses bags, it is not recommended that the regional systems standardize on bags. Totes make better containers for high-volume libraries and it is easier to predict when a truck is full of totes than it is to know when it is full of bags.

Totes are easy to carry and stack and use the same footprint regardless of whether they are full or nearly empty. Of course, this last fact can also be a disadvantage. However, the recommendations included here include eliminating presorting in the libraries, which will reduce the numbers of half-full totes sent through the system.

Once the containers are in place and the delivery volume is known at each location, the route optimization software can be put to use.

### (1) Codes and Equipment

At the most basic level, all libraries in the state should be represented by an agreed-upon delivery code. This may be in place already by virtue of OCLC membership, but if it isn't, a system should be created.

Standardized location codes then set the stage for standardized routing slips. Routing slips should include sending library code, destination library code, and sending date. With these three critical pieces on each routing slip (at least until label-less sorting is implemented), it will be possible to track turnaround time and the standardized codes will improve sorting accuracy (however it is being done).

Shipping containers and shipping container labels should be standardized as well. The containers should be stackable and nestable and have lids to protect the material. There should be a place to attach an easy-to-see label to each container so delivery personnel can quickly stack and move the containers without having to open the lids. See Appendix A: Best Practices for delivery totes that are ideal for this purpose.

Once the containers are standardized, the number of containers moving in and out of each library each day can be tracked and overall volume (in items) estimated.

### (2) Service Levels for Equitable Service

As part of a statewide resource-sharing ecosystem, each library and delivery service must meet certain service levels so that every patron of an Illinois library can rely upon the same level of service regardless of their location or their local library budget. For example, each library should agree to pull all items on their Pull List each day and ensure items are ready for pickup by the courier that day. Delivery services should be able to guarantee next-day delivery. Items received at libraries to fill holds should be ready on the self-service holds shelf the day they arrive. These are all achievable goals and adherence to these guidelines will ensure that Illinois patrons are receiving excellent and consistent service regardless of which library they consider their home library.

### **Implement State-of-the-Art Resource-Sharing System for State**

While OCLC Resource-Sharing has been a reliable way to provide interlibrary loan (ILL) services to individual libraries, it does not effectively build upon the existing resource-sharing environments that are created as a result of the shared library systems. However, there are several state-of-the-art resource-sharing/ILL products that will do just that. Examples include:

- OCLC Navigator
- Relais D2D
- Auto-Graphics AGen Resource Sharing
- Fulfillment (not yet released)

Each of the above systems works with both individual libraries and shared ILSs to provide a much improved interface for patrons and staff.

#### **(1) Circulation Interoperability**

On the staff side, these new ILL products allow the staff to work within the circulation module of their existing ILS. This feature is referred to as “circulation interoperability.” Just as moving from a traditional ILL environment to a shared ILS relieved the staff of having to manage requests from other libraries, “circulation interoperability” relieves the staff of having to manage each request made by a patron outside of their shared ILS system. Moving to an ILL system that supports circulation interoperability for all the shared ILS systems will eliminate much of the workflow associated with requesting material from a library that is not part of one’s shared ILS. It converts what is now a mediated request (staff have to “handle” it) to an unmediated request (patrons can do it for themselves).

#### **(2) Ease of Use for Patrons**

With any of the above resource-sharing systems, it is possible to configure the system so that the patron experiences transparent access to the resources available statewide. Rather than having to seek out a link to another web page where the patron has to try her search again and learn a completely different interface, the newer products can forward the patron’s search request on her behalf.

Depending on the product selected, there are controls that can be used to help the patron expand his search from his local ILS to libraries within his delivery system or to libraries that are part of some reciprocal borrowing group before expanding the search to include other libraries in the state.

Some products are designed to be used (or can be used) as the primary search interface (e.g., instead of searching their local library, the patrons could search at the statewide portal). This puts the entire state’s resources at the patron’s fingertips. Only when the patron makes a request for an item does he need to log in, and at this point, the software will help guide the patron to a copy of the item that is near by or at a local library or from a library that is part of the patron’s shared system.

The current ILL infrastructure in Illinois is not patron-friendly and it is staff intensive. Moving to a state-of-the-art system ensures that all Illinois patrons have access to a rich collection of resources and the work of providing these resources to patrons is made easier for staff because the patron handles the request on his own.

## CONCLUSION

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Following the release of a draft version of this report, the consultant and representatives from ILA and ISL held meetings with staff and board members at Burr Ridge, Decatur, and Chicago Public Library. The meetings were video-conferenced so that stakeholders could attend their local meetings in person as well as the meetings in other regions via video conference. A participant list is included in this report as a start on building a network for information sharing.

The meetings provided an excellent opportunity to ensure that the report was as accurate as it could be, given the moving targets of the merging systems. But more importantly, the meetings became an opportunity for all the key players in the state to think collectively about resource-sharing and delivery.

Many of the recommendations call upon the Illinois State Library and the entities delivering the resource-sharing solutions (e.g., LLSAP's and other shared ILSs as well as the delivery operations and those handling the traditional ILL transactions) to think more broadly about the goals of resource-sharing in the state of Illinois. Whereas the state has traditionally been a leader in this area, it has now lagged a bit behind when it comes to resource-sharing beyond the shared ILS. It will take leadership on the part of the regions and at the state level to shift into a new level of resource-sharing that works not only for those on a shared ILS but for the stand-alone libraries as well. It is now possible to build more robust relationships between shared ILSs to further extend the reach of all libraries.

The current delivery operations have been designed around the LLSAP's and to some degree the shared ILSs. This makes sense because roughly 90 percent of all materials movement tends to happen within the confines of the shared ILS membership. Discovering and requesting material in a shared ILS environment is very easy and this is what drives delivery. As the tools used by patrons improve across the shared ILS systems and as stand-alone libraries join in (e.g., by participating in the recommended consortial ILS), all these delivery patterns will change. If an ILL product that supports patron-initiated ILL transactions is implemented, this too will change delivery patterns (and increase volume dramatically outside of the shared ILSs). In other words, it is important that the delivery operations that are developed out of this process are designed for change.

Between the changing patterns of physical delivery as determined by the resource-sharing tools being used and the unknown effect that downloadable media and e-books will have on physical delivery, it is important to remain vigilant about the capital investments made to physical delivery. In many cases, using some outsourced services can not only reduce cost but also provide more flexibility. It will be important to continually monitor the effects of these changes to ensure that the best possible delivery choices continue to be made.

## NEXT STEPS

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Several areas of this evaluation will be informed by additional review and analysis because the data used had to be estimated in some cases, and had only recently been collected. As the report is digested and implementation begins, this will take place as a matter of course.

The timing of this study was designed to support the merger of several delivery operations (and other services) into two new regions: IHLS and RAILS. Over the course of the study, the process of merging these systems had begun and, as a result, some of the information in this report is already outdated. In some cases, the process of gathering this information and working with various stakeholders helped inform their efforts. The hope is that this report serves as a planning document that will support their ongoing work.

The recommendations include suggestions for sequencing, (e.g., which things make sense as initial steps because they are either lower-cost or provide information for subsequent steps, etc.). A timeline for implementation is beyond the current scope, in part because ramifications associated with some of the recommendations go beyond delivery, and need to be taken into account in the larger context of the overall situation.

The recommended next steps include:

1. Formalize the coordination of delivery statewide. Whether this takes the form of a statewide logistics coordinator or other means, better coordination between delivery operations can address some of the concerns: standardized containers, labels and codes, shared best practices, support for optimizing routes, and good metrics for reporting delivery volume, costs, and a baseline for comparing in-house services to outsourced options.
2. Evaluate the long-term objectives for resource-sharing in Illinois in terms of the tools used by patrons and staff. Extending resource-sharing opportunities for stand-alone libraries and between shared ILSs may require a commitment at the state level.
3. Support each of the newly merged systems as they work to consolidate and optimize their operations. While outsourcing is something that should always be on the table as an option, it makes sense to allow some time for each delivery service to adjust to the changes and identify best practices from each of the former hubs. Outsourcing, or partial outsourcing, may or may not be a better solution but it can only be determined after seeing what can be accomplished with the new entities.
4. Pilot projects aren't specifically identified in the report, partly because they can be costly to implement and the scale sometimes required to evaluate results can make them impractical. But modeling potential redesigns using existing information and criteria can be a useful and productive way to explore options, such as the "modified ILDS" recommendation. Similar logic might be applied to other recommendations ranging from consolidation of ILSs to label-less sort options.

# Section 3

Additional Areas for Cooperation  
and Collaboration

### **Shared Catalogs**

IHLS has already made progress in this area, and the Galecia Group report contains recommendations for other resource-sharing options, such as OCLC Navigator, Relais D2D, Auto-Graphics AGen Resource Sharing, Fulfillment, etc. This is a highly technical area that changes rapidly, as well as one with philosophical and policy implications. Depending on mandates, financial support, or other input from the Illinois State Library and ILA members, ILA would be prepared to convene stakeholders and assist in any way possible to help ensure equitable and fair access to library resources for all Illinois residents while maintaining library services that are financially sustainable.

### **Group Purchasing**

A California-based consortium, the Califa Group, has been providing group purchasing to members since 2004 and currently works with 228 California libraries, including 153 public libraries. ILA met with the Califa Group Executive Director Linda Crowe in October and hosted a subsequent meeting in December with Crowe and Heather Teysko who handles vendor contracts for Califa; ILA President Lynn Elam and ILA Board Member Rebecca Teasdale attended the meeting along with ILA Executive Director Bob Doyle and project consultant Chris Watkins.

The Califa Group model is an interesting one and has potential applications in Illinois. One of the primary benefits is “unbundling” of products from major vendors, allowing libraries to get the products they want at significant discounts. Rebecca Teasdale is gathering information on current consortial purchases in Illinois and potential demand for key products such as 3M™ Cloud Library for e-books, Shoutbomb and Altarama for Short Message Service (SMS), Clio or ILLiad for interlibrary loan, etc.

ILA will evaluate possible scenarios for partnering with Califa Group, as well as investigating offerings from other consortia, and be prepared to make recommendations to the ILA Executive Board and library community later in 2012. If there appears to be sufficient demand and interest, ILA would consider becoming the operating partner with the Califa Group to provide services to Illinois libraries.

### **Continuing Education (CE)**

No clear source to replace this role of the former systems has emerged in this area, though some collective and cooperative efforts are under way. In the interim, ILA continues to offer continuing education through conferences and workshops. As more and more CE moves online, ILA has been exploring platforms for online learning through conversations with vendors, as well as major national library continuing education providers, such as the Public Library Association, and is in discussion with ISL to assist with continuing education for trustees.

### **Advocacy/Marketing**

The ILA Advocacy Committee has expanded its role in providing resources and support to Illinois libraries and citizens interested in advocating for library services. Additional information is available at [http://www.ila.org/index.php?option=com\\_content&view=article&id=315&catid=0](http://www.ila.org/index.php?option=com_content&view=article&id=315&catid=0)

# Section 4

Appendices

### Containers for Moving Library Material

The National Information Standards Organization (NISO) document referenced in this report doesn't make a specific recommendation about delivery containers. However, there are several things to keep in mind when evaluating the containers used for library delivery. One issue is weight. It is important that the containers are not (or even better, cannot be) filled beyond an acceptable weight. Most library delivery services set that weight limit at approximately 45 pounds per container. According to the National Institute of Occupational Safety and Health (NIOSH), the Recommended Weight Limit (RWL) is the weight of the load that nearly all healthy workers can lift over eight hours without increased risk of lower back pain. Further, they state that the maximum weight to be lifted with two hands, under ideal conditions, is 51 pounds.<sup>1</sup>

Containers should have lids to protect the material from the elements. They should be sturdy to protect items from weight. Containers should also be stackable and either nestable or collapsible so they can be stacked when in use (even with their lids) and can be efficiently stored when not in use. It is best to use one type of container throughout a system to reduce the storage requirements (e.g., two different types of containers will not stack together nor will they be nestable for storage).

If there is a need for smaller and larger containers, choose a container that comes in two heights but which has the same footprint. That way, the containers can be nested and stored efficiently when not in use. These types of containers are called distribution totes or internal totes.<sup>2</sup> They are "internal" because they are used in a closed loop system versus being used one-way. They come in footprints of 28"x16" to 19"x12" in a variety of heights.<sup>3</sup>



FIGURE 1: Good example of a library delivery tote.

Some libraries use canvas bags instead of containers. Canvas bags make sense for grouping small numbers of items together. These small canvas bags should then be put in a tote. That way, a small number of items going to one location can be sorted together and only one routing label is needed for all of them. A small bag can hold more items than can be grasped by a sorter and it eliminates the need for rubber banding smaller numbers of items together that are headed for the same place.

As good an idea as canvas bags are for small groups of items going to the same location, they are a bad idea as a replacement for totes. By sticking with standard-sized totes, the drivers will be able to use the same equipment (probably hand trucks) for moving stacks of totes around. Drivers will also be able to load and unload the trucks very efficiently. When bags are introduced into the mix, it creates complications related to securing the load, organizing the load, and moving material in and out of the libraries. Also, the bags don't protect the material as well as totes in terms of breakage. It is also impossible to know what is inside a bag without handling the tag. With totes, labels can be placed on the outside and should be visible to the drivers and sorters without requiring them to lift or rotate anything.

### Vehicles and Equipment for Moving Containers

Most libraries use hand trucks for moving stacks of totes in and out of the library and in and out of the trucks (if they are equipped with lift gates). Some libraries use vans instead of box trucks. The benefit of vans is that they use significantly less gas and are easier to maneuver and park and may be able to get into parking structures that bigger trucks can't. Therefore, in some cases, a van makes sense. But it is important to pick the right type of van.



FIGURE 2: Van with low head clearance requires the driver to organize material while hunched over.

Vans that only have a side door and are too short don't allow the driver to stand up or use hand trucks. Instead, each item (tote or bag) must be moved one at a time.

Vans that are at least six feet high allow the driver to stand inside to organize the load. When equipped with a portable ramp, the driver can wheel out stacks of totes with a hand-truck just like with a lift-equipped box truck; however, unlike a lift gate, the portable ramp must be stowed inside the van (taking up valuable space) and it is heavy and awkward. Positioning the ramp for use is not trivial.

Most libraries use hand trucks to move stacks of totes in and out of trucks. Depending on volume and surface between the truck and library drop off spot, it may be worthwhile to invest in a convertible hand truck. These allow the driver to move twice as many totes at one time but they are difficult to use if there is a steep incline or slope to contend with.



FIGURE 3: Tall vans equipped with portable ramps make tote handling more ergonomic and efficient.

For situations where there are stairs or steep incline to the library delivery location, it may be wise to invest in a hand truck with a brake or a climbing hand truck.

Some libraries use book carts for transport as well as delivery. This has some advantages but ultimately is not recommended. The advantage is that the material doesn't have to be transferred out of a tote and sorted onto a book cart. But since the items generally have to be checked in anyway, it probably won't eliminate the handling. The biggest problem with using book carts for transport is the wasted space on the truck. In addition, they are difficult to secure. Keeping the material on the book carts and secured inside the truck usually takes several straps and/or heavy-duty bungee cords.

<sup>1</sup> See Ergonomic Guidelines for Manual Material Handling, available at <http://www.cdc.gov/niosh/docs/2007-131/pdfs/2007-131.pdf>.

<sup>2</sup> Rogers, Lorie King. (January 2011). "Equipment 101: Totes and containers," Modern Materials Handling. Available from [http://www.mmh.com/images/site/MMH1101\\_EquipRptTotesContrns.pdf](http://www.mmh.com/images/site/MMH1101_EquipRptTotesContrns.pdf).

<sup>3</sup> See <http://www.globalindustrial.com/g/storage/bins-totes-containers/shipping-security/attached-lid-distribution-containers> for a wide selection of nestable distribution bins in various heights and colors.

### Sorting

Sorting of individual items happens in one of three places: in the library, in the truck, or in a central sort location. Sorting by library staff inside the library is referred to as presorting since it is usually just a portion of the total sort process that is required.

#### Presorting in the Library

Presorting makes some sense only when selectively done. The optimal way to presort is to identify a single, high-volume library that follows your library on the delivery route (aka down route). Presorting to a down route library that gets a full tote (or more) each day is a great way to provide same day delivery and to eliminate some handling by the courier and/or central sort staff.

However, presorting can very quickly turn into a bad idea. Many library staff sacrifice their time and use up valuable floor space to lay out totes representing all the locations in their system or on their delivery route. This is not a good use of in-library space because a) it is usually a lot more expensive per square foot than the warehouse-style space being used for a central sort facility; b) because library backrooms are almost always too small and laying out totes this way uses up a lot of space; c) oftentimes many of the totes are not filled up so this leaves a lot of vertical space completely unused; and d) the time of the library staff is better spent doing the work only they can do rather than doing the work that the central staff are hired and trained to do.

The benefit of presorting all items to their own tote is that the work of labeling individual items can be eliminated. This is a big benefit for library staff. For this reason, finding a good balance of strategic presorting with compact storage of totes in the library is generally the best bet.



FIGURE 4: Expensive library floor space dedicated to presorting.

### Sorting on Trucks

Sorting on trucks is rarely a good idea because it involves using two of the most expensive resources in a library delivery system to do it: trucks and drivers. There are cases where the distances between locations are so long and the volume so small that it makes sense to reduce the number of trips by sorting along the way. But this is rare because there are so few locations where the volume is light enough and the distances between stops long enough to justify doing it this way. Very often, redesigning the delivery routes is a better solution.

#### Centralized Sorting

The best sorting systems are those that are located in warehouse spaces which are conveniently located in the delivery service area. These large warehouse spaces can be converted to optimized sort environments designed to match the routes and the flow of material.

#### Unloading the Trucks

If the warehouse is equipped with a loading dock, trucks can be unloaded by wheeling out stacks of totes with hand trucks. If there is no loading dock but the trucks have lift gates, the same technique can be used. In the case of tall vans with portable ramps, it is worthwhile to unload using the ramp. However if the vehicles used have to be unloaded one tote at a time, it may be worth considering a gravity conveyor. This allows someone in the truck to place each tote on the conveyor and the weight of the tote will move it down the conveyor to an unloading station.



FIGURE 5: Gravity conveyor being used to unload totes.

### Manually Sorting Items

When sorting is done by people (versus automated sorting machines), it is important to lay out the warehouse space into sorting pods to reduce the number of locations being sorted to by any one person and to reduce the amount of walking around that each person does. The sorting pods should be easy for sorters to reach and should be clearly labeled.

Libraries on a shared library system should always be in their own pod because most of the material flows within the shared system. However, if there are more than 50–60 libraries in a shared system, it may be worthwhile to separate the locations into more than one pod (e.g., destinations that begin with A–L are sorted in one pod and those with M–Z in another). If this is necessary, it is often worthwhile to presort in those libraries (one stack of totes for the A–L libraries and one stack of totes for the M–Z libraries).

When sorting to a large number of locations, it is a good idea to sort from the totes to a transfer shelves. Then have sorters take stacks of items from the transfer shelf for a single location and put them in a tote. This reduces the amount of walking around that the sorters must do (which causes confusion and takes more time). When there are a large number of locations, the open bins for sorting can take up a large amount of space. By using the transfer shelf, you cumulate the items first and some locations can be ignored until enough of them have been stacked that “opening up a new tote” is justified. Figure 6 shows an example of using transfer shelves to sort to over 100 locations. People unloading bins place items going to the same destination in stacks on the shelves. Once a stack builds up, sorters on the other side of the shelf take those items to a tote.

A less elegant way to separate the material into manageable sized pods is to have one person empty the tote onto a table and to stack the items on the table according to sorting pods. Then each sorter working a specific pod can grab stacks of items that belong in his pod and put them in the proper tote. Again, the goal here is to reduce the distances traveled by each person and to keep people in their own sections so they don’t keep bumping into one another.

Manual sorting usually implies that the sorter reads the routing slip to determine the item’s destination. When this is the case, it is important for the routing slip to be clearly printed (not by hand), and positioned on the cover of the item. The sorters should not have to open covers or cases in order to figure out where the item is going. It is also important to have a standardized code system for each location.

The state of Massachusetts is doing manual sorting different from anyone else in the country. Instead of using routing slips, they are using hand-held scanners to read the bar code on each item and then utilizing a put-to-light system that tells the sorters where to place the item. The system communicates with the library’s ILS (integrated library system) to identify the destination of each item (based on the bar code number). The tote that is positioned at that destination then turns on, telling the sorter where to put the item. The sorter drops the item in the tote and presses a button to confirm that he has done so. This type of system is very common in warehouse systems but it has never been implemented in a library setting (largely due to the complications associated with communicating with the ILS). A put-to-light system (or “label-less sort” as Massachusetts calls it) is extremely accurate and faster than a manual system based on routing slips.

When optimized, a manual sort operation should be able to sort 500 items per person per hour. With a put-to-light system, the speed and accuracy will be even better.



FIGURE 6: Good arrangement of totes for sorting.



FIGURE 7: Transfer shelves sorters to accumulate items before transferring them to totes.

## APPENDIX A: BEST PRACTICES

### Automated Sorting

Automated sorting systems ratchet up the per-hour sort by a factor of 10. Whereas a person can sort 500, maybe 600 items per hour, an automated materials handling system (AMHS) can sort 4,000–6,000 items per hour. Like the put-to-light system described above, an AMHS system reads the barcode (or RFID tag) on the item, queries the library’s ILS, and sorts the item to the appropriate discharge. Items can be sorted into totes, bins, or even onto shelving carts (this would only be useful in a library setting, not at the central sort center).

So far, sorters used for library material still require some handling. Items in the delivery totes must be placed on the conveyor belt which then carries each item under the reader/scanner and then on to its destination tote. So, while the sorter can sort items very quickly, to do so requires several people to load items onto the conveyor (see Figure 8).

AMHS systems can be very sophisticated like the one in King County Library System’s (KCLS) Preston Service Center. It sorts to over 150 discharges (and has room for an additional 50). Each day, over 54,000 items are sorted at KCLS. The system is composed of the high-speed sorter as well as a “take-away” conveyor that is used to move the full totes from the sorter to the automated storage and retrieval system (ASRS) where they are staged until the driver calls for them. This take-away conveyor also keeps empty totes available to put in place when the full ones are removed.

The ASRS system is composed of a crane that puts the totes in a large storage rack after they’ve been filled. When a driver arrives to start his (or her) route, the driver punches in the route number and the ASRS system delivers the totes in stacks of four, in reverse order for optimal loading and unloading based on delivery route (see Figures 9–11).

The KCLS AMHS system also provides tote manifesting. What this means is that each item loaded into a tote is associated with the tote number. The warehouse management system (developed by the AMH vendor, Lyngsoe Systems) keeps track of each tote and its contents. When the tote arrives at the library, the staff have the option of scanning the barcode on the tote instead of having to scan each item in the tote thus reducing the number of scans done, for each tote delivered (at least for “return” totes that don’t require additional holds processing).

There are automated sorters in use at central sorting facilities that are less complex than the KCLS sorter. For example, Las Vegas–Clark County Library District uses a straight run sorter provided by Envisionware. Rather than moving items on a circular conveyor system, material runs one way down a series of conveyors to its destination. These sorters tend to be less expensive, take up more space, require items to be re-inducted when a tote isn’t available, and are generally slower.



FIGURE 8: The largest automated sorter in the country is currently at King County Library System (WA).



FIGURE 9: Driver punches in route.



FIGURE 10: Totes are moved from large rack in background out to stacker/unstacker.



FIGURE 11: Driver uses hand truck to take stacked totes to truck which is parked at nearby loading dock.



FIGURE 12: Loaded totes staged on pallets ready to load on appropriate truck.

### Staging Totes and Loading

Once totes have been sorted, it is important to stage them efficiently. In high-volume situations, pallets should be used to designate one or more locations. As totes are filled, they can be placed on a pallet adjacent to the item-level sorting area. Pallets should be designated by truck or route so that the right totes are placed on them. These pallets can then transfer over a dozen totes at a time to the trucks using pallet trucks (see Figure 12). For small-volume applications, platform trucks and dollies can be used for staging full totes.

### Outsourcing Delivery

In May 2008, Brenda Bailey-Hainer, Valerie Horton, Greg Pronevitz, and Melissa Stockton surveyed libraries in 30 states about physical delivery in libraries. They found that slightly over half of the respondents outsourced delivery to a commercial carrier. Another 7% used a combination of in-house plus commercial service. Another 4% used a national shipper like UPS or Federal Express.<sup>4</sup>

There are several good reasons to outsource delivery to an established, regional courier system. As Ken Bartholomew, President of American Courier, put it:

*“Courier companies are experts in time management and route efficiency. In addition, they provide same-day service and do not have the same strict shipping restrictions of the major national delivery companies. Relieving the expenses incurred and the daily management of the library staff is a win-win for both organizations.”<sup>5</sup>*

The main reason libraries choose to outsource delivery is to save money. Professional courier companies know how to run their service at the lowest possible cost. If they didn't, they wouldn't win the job or they'd quickly go out of business. Unfortunately, some libraries have fallen prey to the

appeal of the lowest bid and contracted their library delivery to a small local operator that underbid their service. When the inevitable occurred and the courier had to cease operations, these libraries were left with a warehouse full of books to deliver. The lesson is that the lowest bidder isn't always the best choice. It is important to use a courier company that has a proven track record. The Moving Mountains Project website ([movingmountainsproject.wordpress.com](http://movingmountainsproject.wordpress.com)) maintains a list of courier companies used by libraries. This is a good start. RFPs can also be posted at the Messenger Courier Company of America's "Courierboard" (<http://www.courierboard.com/mcaa/GetDeliveryRFP.aspx>). In either case, it is important to evaluate the proposal by a courier to see if it has really taken all costs into account and is offering a sustainable service.

One of the reasons it is likely that a courier company can run the service cheaper than the library can is because the courier companies can combine runs with multiple customers. If they have taken on a customer that requires service to a far-flung location, you can bet they will be looking for ways to add more customers along that route. Their focus is maximizing each trip and keeping the cost per mile driven low. Just like in a library-operated service, their objective is to send out the truck full and have it return full. But unlike library delivery systems however, they can combine multiple customers' jobs to accomplish this goal.

Flexibility is another reason that library systems should consider outsourcing. Once the libraries have made an investment in a large fleet of trucks and a place to do the sorting, and have hired drivers and sorters who are counting on them for work, it is very difficult to adjust to fluctuations in delivery volume. This is primarily a problem of downsizing. It is easy enough to hire an independent contractor to drive his own truck during peak times. But when it comes time to eliminate positions or reduce the number of trucks in a fleet or to change the types of vehicles in a fleet, library-run services have a very hard time doing it.

With an outsourced courier, all these problems are for the service provider to solve. As long as the contract has accounted for changes in delivery volume and numbers of stops, then the library service can make the changes it needs to make and let the courier company sort out how to implement it in terms of vehicles and personnel.

Also, any service run in-house comes with overhead. There are costs associated with managing payroll and worker's comp, office space, and sorting space. Vehicles need to be selected and maintained and cleaned and spares need to be available to cover breakdowns and scheduled maintenance. Sorters and drivers need to be hired, scheduled, and trained how to do the job safely and efficiently. The system needs a manager to handle personnel issues and the problems that inevitably arise, and statistics should be tracked. The manager needs to be able to be the public face of the service and keep library customers informed of service schedules and changes and to ensure that the service is meeting the customers' needs.

All of this overhead goes away when outsourcing. And again, the chances are that a commercial courier service can do all of these things better and cheaper than a library operation can because they are providing that overhead and that training and that management infrastructure for multiple clients. In a library scenario, all that overhead is at a much higher cost because it isn't shared with anyone else.

<sup>4</sup> Horton, V. and Pronevitz, G. (2010). "Chapter 5: Outsourcing Delivery Services," in *Moving Mountains: Physical Delivery in Libraries* (Eds: Valerie Horton and Bruce Smith), Chicago: American Library Association.

<sup>5</sup> *Ibid.*, p. 44.

### Beyond Library Delivery

There are lessons to be learned from the logistics and warehouse management operations that serve other industries. Driven by the bottom line, these other industries pay very close attention to workflow optimization, appropriate selection and use of equipment, and ergonomics.

### Workflow Optimization

It can feel overwhelming to look at an entire library delivery system and try to figure out where to begin. One way to get help is to use proven methodologies that help break down the process. Two of the most widely used methodologies are Lean and Six Sigma.

### Lean Methodology

The Toyota Production System was developed in the 1950s by Toyota in Japan. Though its original application was manufacturing, many other industries have utilized the principles to optimize construction, software development, administrative operations, and laboratory. Today, many of the principles developed by Toyota have been incorporated into a system referred to as Lean manufacturing or, when applied to an industry such as libraries, Lean enterprise.

One of the core principles of Lean is “kaizen” which means improvement. The focus of kaizen in the context of Lean is to continually improve the workflow by making small but meaningful changes. The idea is that each of these small improvements will make an immediate difference in the working environment. It is not a top-down, one-time event. Kaizen is a process and a group effort in which everyone contributes their ideas. If it becomes a daily part of everyone’s routine and a part of the culture to look for these small changes, it can make a very big difference in how efficiently an organization runs.

### Reducing Waste

A Lean process looks to reduce waste in several forms including: transport, inventory, motion, waiting, overproduction, over processing, defects. Some of these wastes are particularly pertinent when evaluating library delivery systems; for example, transport. An example of waste in transport is moving something when it is not necessary. Many people doing workflow optimization look at ways to “reduce touches” which gets at the same issue. The goal is to find the quickest and shortest way to get an item from point A to point B.

Wasted motion is when people are walking or equipment is moving more than is required to perform the processing. Using the example of sorting into pods discussed earlier is a way to reduce this type of wasted motion.

Waiting is another important waste to be avoided. For example, designing a delivery route that gets the driver to a location before they can get inside to make the delivery would be an important “wait waste” to be avoided. Not having totes to use to prepare outgoing delivery is another form of this type of waste.

Over processing describes the process of doing more than is necessary. Oftentimes packaging of material being put into transit suffers from this type of waste. Too many rubber bands, tape, jiffy bags, and staples are ways that libraries often over process.

Defects introduce a lot of waste in any system. In library delivery, these defects show up as mislabeled material, material delivered to the wrong location, mis-sorts, and damaged material. Eliminating these kinds of defects in the workflow will dramatically improve overall efficiency.

### Visual Management

Another important concept used by Lean practitioners is Visual Management. The idea is that when everything has a place, it is easy to see when something is out of sync. Two systems are utilized to support this goal: The 5 Ss and the 5 Ms.

The 5 Ss are: sort, set in order, shine, standardize, and sustain. In the sort phase, everything that is unnecessary is stored away leaving only each work area with only the tools that are used every day. These tools are then set in order so they are easy to access. Shine refers to the importance of keeping one’s work area clean and optimally functioning. Standardize and sustain refer to the need to build these steps into an ongoing standardized routine that is part of each worker’s day.

The 5 Ms are management tools that support this type of system. The 5 Ms are manpower (managers should know each employee’s job intimately), machines (managers should have a working knowledge of all the tools), materials (only materials that are needed should be in a work zone), methods (methods should be standardized), and measurements (keep important statistics and performance targets prominently displayed).

One of the key 5 Ms in library delivery is materials. In the library as well as the central sort/delivery warehouse, it is important to make sure that only the material that is in process is in the work area. For example, the only things in the sorting area should be totes being used for sorting and the items that are being sorted (staged on a table or shelf or stack). Empty totes should be kept out of the way (but easily accessible). Full totes should be moved out of the area immediately. And, the personnel in the area should be limited to those doing the work. There should be no janitorial supplies, extra computer parts, stray equipment, or people in the sorting area.

Methods is another important area to focus on for library delivery. Methods need to be standardized so that it is easy to see if everyone is doing their job correctly and keeping on schedule. In a library backroom, material check-in from the delivery system as well as from the bookdrop requires several steps. Standardizing this workflow and ensuring that each person has the right amount of space to do it as well as the appropriate equipment will ensure that the process goes smoothly. And if there is a snag in the workflow, it will be obvious because there will be an obvious backlog at one station.

Measuring is another useful technique for keeping track of performance and performance targets. The only way to be sure that the system is functioning optimally is to have something to compare it to. In library delivery, this means counting how many items are picked up at each location, what time they were picked up, and noting whether they were on time, keeping track of how many items are sorted and how fast, and monitoring costs associated with each task. Once these statistics are tracked, it is possible to experiment with changes to see how they improve performance (or not) and to help managers plan for fluctuations and patterns that emerge.

### Six Sigma

Six Sigma is a methodology developed by Motorola in 1986. Its focus is on quality control. The term “Six Sigma” refers to a rating that identifies the percentage of defects in a manufacturing process. Six Sigma is a very high standard (3.4 defects per million opportunities). There are five steps to the methodology associated with Six Sigma: Define, Measure, Analyze, Improve, and Control (DMAIC).

Six Sigma is more focused on the big picture analysis than Lean, which focuses more on the small changes that can be identified by the people doing the work. Six Sigma utilizes a lot of process mapping, measuring, and analysis to determine “process capability.” Some of the same techniques found in Lean are also utilized in Six Sigma.

The focus on process modeling, or business process mapping, is a strong suit of Six Sigma. The idea is to document the inputs needed to do each job and the outputs that result from that effort and to ensure that the order of the work done makes sense. Once the current workflow is documented, it is easier to identify where the system breaks down and to design improvements. The new design is tried, measurements taken, and additional areas of improvements are identified.

Like Lean, Six Sigma is meant to be an ongoing process improvement system. However, unlike Lean, many of the methodologies are more complicated and require significantly more training.

### Lean and Six Sigma Training

Utilizing the principles of Lean is a good way to begin the process of optimizing the organization’s workflow. Providing training for workers and supporting the principles throughout the organization is even better. This is when the real value of the Lean methodologies will begin to pay big dividends.

The Lean Enterprise Institute (LEI) is a good place to get started with Lean. It provides books, workshops, and webinars and even offers a personalized road map for those working to expand their skills in this area. LEI also holds a Lean Transformation Summit each year. LEI does not offer any Lean certifications.

Six Sigma certifications are available though there is no standard certification body. The levels of certification are White Belt, Yellow Belt, Black Belt, and Master Black Belt. Many of the same organizations that offer Six Sigma certification offer combined Lean/Six Sigma certifications as well.

### Appropriate Selection and Use of Equipment

One of the biggest differences between a library material handling operation and other industries is in the equipment used. Despite the large number of items moved by library delivery services each year and the high cost of providing those services, library delivery systems have traditionally demonstrated a “make do” approach to their delivery service. Rather than buying the right vehicle for the job, they make do with one that is a little cheaper (up front anyway). Instead of buying a pallet truck to move 16 or more totes at a time, they use a hand truck and make 4 trips.

The lesson to be learned from other industries is that these kinds of choices do not ultimately save the system any money. The fact is, these are just the kinds of decisions that increase the costs of library delivery operations.

### Vehicles and Routes

One of the most important components of a library delivery system is the delivery fleet. The fleet must be maintained, fueled, operated, and used strategically. If the organization cannot handle management of all these components (among other things to be discussed later), it may be that outsourcing the transportation component of the delivery system is called for.

Vehicles must be chosen to match the route. This requires knowing the number of items that will be delivered and picked up on each route and how long the route takes to run. One objective of route design is to ensure it can be completed without incurring overtime charges for the driver. Another objective is to reduce empty miles. The truck should leave the dock full and return full. If it doesn’t, it isn’t being effectively leveraged.



FIGURE 13: Large box trucks work well for this large urban library system.



FIGURE 14: Think out of the box (truck) for low volume delivery in urban areas.

## APPENDIX A: BEST PRACTICES



FIGURE 15: This small van never gets fuller than this so getting a bigger truck would just add unnecessary cost to the run.

The size, shape, and configuration of the vehicle should match the material being transported. Consider UPS. The vehicles used by UPS are vans configured with two shelves, each running the length of the vehicle approximately 4 feet high. UPS has worked hard to fine the right vehicle for the application. The storage spaces are wide open rather than compartmentalized allowing for the wide variety in shapes and sizes of items they transport. The items can be accessed from the front and back as well as the center and the height of the truck allows drivers to work in the back without bending over. Drivers can get in and out of the trucks easily and quickly (low steps in the front and back) and don't have to deal with slow lift gates or heavy pull down doors and never have to reach above their shoulders for an item. Since the vehicles are small vans, they are relatively fuel efficient and can get into small spaces. UPS trucks are designed perfectly for what they do 90% of the time.

That said, does it mean that libraries should use UPS-style trucks? Definitely not. Libraries do not move items of varied sizes. Most often, library delivery systems move totes, all of which are the exact same size. Delivery volumes vary but more often than not, several totes are delivered to each location; therefore it is important to be able to use a hand truck to move out several totes at a time. Lift gates are slow but they make it possible to use hand trucks, which reduces trips and eliminates the need for lifting totes.

In other words, choosing the right vehicle has to do with the specific facts of each delivery scenario. High-volume routes in urban areas that provide truck parking and loading docks can use large box trucks effectively (see Figure 13). Low-volume routes in urban areas might do better with a more agile approach (see Figure 14).



FIGURE 16: Electric mail delivery truck. Perfect shape for totes with good access.

Rural libraries with less volume and greater distances may opt to use vans. Vans are more fuel efficient and can handle trickier terrain (see Figure 15). Higher volume situations may not be suitable for vans because they cannot hold nearly as many totes as a box truck and it is more difficult to manage the loading and unloading (see Figure 2 from earlier discussion).

Fuel efficiency is an important consideration when considering vehicles. It used to be the only choice was between diesel and gasoline. But today, library delivery services should include hybrid and possibly even electric vehicles in their fleets (see Figure 16). Fuel costs seem to go up and up so investing in these fuel-efficient technologies now could save the libraries a significant amount of money over the lifetime of that vehicle.

Ensuring the vehicles are used efficiently is no easy matter. It requires keeping track of delivery volumes at all locations and it requires using software to continually evaluate route design.

## APPENDIX A: BEST PRACTICES

### Transportation Management Software

The way to optimize the use of a fleet is to use some kind of Transportation Management Software (TMS) that includes route design and optimization functionality. Good examples of this type of software include:

1. Appian DirectRoute  
(<http://www.tmwsystems.com/node/770>)
2. eRouteLogistics  
(<http://www.e-iit.com/RoutePlanning.html>)
3. Paragon Integrated Fleets/Multi Depot  
(<http://www.paragonrouting.com/us/products>)

Not all TMS includes route optimization functionality. Some are designed simply to manage the fleet and drivers and schedules. One product that has been developed specifically for library use is Library2Library (<http://quipugroup.com/Products/library2library.html>). This product provides a trouble ticket system, lost item management, courier schedule management, library location information, and handles many accounting and communications functions.

### Hand Trucks and Pallet Trucks

A typical library tote weighs 40–45 pounds. Carrying them one by one or two by two all day long is not advisable. Thankfully, most library delivery systems use hand trucks to move stacks of totes. However, there is a much broader range of hand trucks and other tools for moving totes that are less frequently seen in library delivery environments.

Hand trucks come with brakes to better handle slopes, handles for better maneuverability, and they can be converted from hand trucks to platform trucks. Hand trucks are even available that can be used to climb up stairs.



FIGURE 17: Hand trucks with brake and small portable ramp.



FIGURE 18: Hand truck with handle for better control.



FIGURE 19: Convertible hand truck.

## APPENDIX A: BEST PRACTICES

Hand trucks can also be mounted on the truck for easy access and for optimal use of the interior storage space.



FIGURE 20: Rear-mounted hand truck on van.



FIGURE 21: Front-mounted hand truck on truck.

Pallet trucks are like hand-held forklifts. They are used to move pallets around a warehouse floor. The inexpensive wooden pallets can hold a heavy, balanced load and are designed specifically for use with forklifts or pallet trucks. They are ideal for stacking 16 or more totes so they can all be moved at once. Pallet trucks are one of the tools one rarely sees in library delivery operations. Pallet trucks like the one in Figure 22 cost approximately \$200.



FIGURE 22: Inexpensive pallet trucks can move 16 totes at a time.

## APPENDIX A: BEST PRACTICES

### Ramps

Ramps are another under-utilized tool in library delivery operations. A well-placed ramp can shorten the distance from truck to delivery destination when curb cutouts are not available. Portable ramps come in a wide range of material but aluminum ramps are light enough to easily move around yet heavy enough for library delivery (see Figure 24 for an example from *Handi-Ramp*).



FIGURE 23: Plastic hand truck curb ramp holds 1000 lbs.



FIGURE 24: Portable ramps can be stowed under the truck or at the site.

### Conveyors

Another underutilized type of equipment is conveyors. Like hand trucks, conveyors come in many configurations. Some have steel rollers, some are expandable, some are powered and some rely on gravity to move the items down the line. A well-placed conveyor is a good way to eliminate several steps in the workflow. For example, trucks or vans can be unloaded by placing totes on a gravity conveyor. The conveyor rollers ensure that the tote doesn't slide too quickly down the conveyor and side rails will help ensure it doesn't fall off during its trip.

Conveyor pieces come in many shapes and sizes and can be put together in an endless number of ways to help get totes from one place to another without lifting. When combined with a powered belt conveyor (just one section needs to be powered), material can be moved fairly large distances on the unpowered (and inexpensive) roller conveyors.

### Ergonomics

Using the right equipment and following guidelines developed by the Occupational Safety and Health Administration (OSHA) and the National Institute of Occupational Safety and Health (NIOSH) will ensure that workers stay healthy and productive on the job. The following guidelines have been pulled from publications made available from NIOSH and OSHA<sup>6</sup>. The items presented are particularly pertinent to library delivery operations:

- Use angled shelves to improve access to containers.
- Slide, push, or roll instead of carrying, when appropriate.
- Push and pull equipment with the entire body instead of with just the arms and shoulders.
- When pushing or pulling use both hands when feasible.
- Hold containers close to body when lifting.
- To move heavy loads over long distances, either reduce the load or use powered equipment.
- Plan the workflow to eliminate unnecessary carrying and lifting.
- Minimize the distances loads are lifted and lowered.
- Avoid manually lifting or lowering loads to or from the floor.
- Arrange materials to arrive on pallets, and keep on pallets during storage.
- Use a forklift to lift or lower the entire pallet of material, rather than lifting or lowering the material individually.
- Clear spaces to improve access to materials or products being handled.
- Provide easy access so that workers get closer, and reaching, bending, and twisting are reduced.
- Raise the worker so that the container is grasped 30" – 40" from the surface the worker is standing on.
- Adjust surfaces or platforms to accommodate different heights of workers.

<sup>6</sup> A particularly useful resource is *Ergonomic Guidelines for Manual Material Handling* by the California Department of Industrial Relations. Published in 2007. Available from <http://www.cdc.gov/niosh/docs/2007-131/pdfs/2007-131.pdf>.

## APPENDIX B: MAPS OF LIBRARIES AND HUBS

- All Illinois Libraries
- Stand-alone Public Libraries
- Public Libraries on Shared ILS
- I-Share Libraries
- School Libraries on Shared ILS
- Stand-alone School Libraries
- Stand-alone Special Libraries
- Special Libraries on Shared ILS
- Non-Public Libraries on Shared ILS
- RSA Libraries (Alliance)
- SWAN Libraries (Metropolitan)
- Shared DLS Systems
  - MAGIC Libraries
  - LINC - North
- CCS Libraries (NSLS)
- PrairieCat Libraries (PALS)
- Northern Illinois Consortia Libraries
- GateNet Libraries (LCLS)
- LINC Libraries (LTLS)
- elCat Libraries (aka Decatur Area, RPLS)
- SILNET Libraries (SLS)
- HUBS

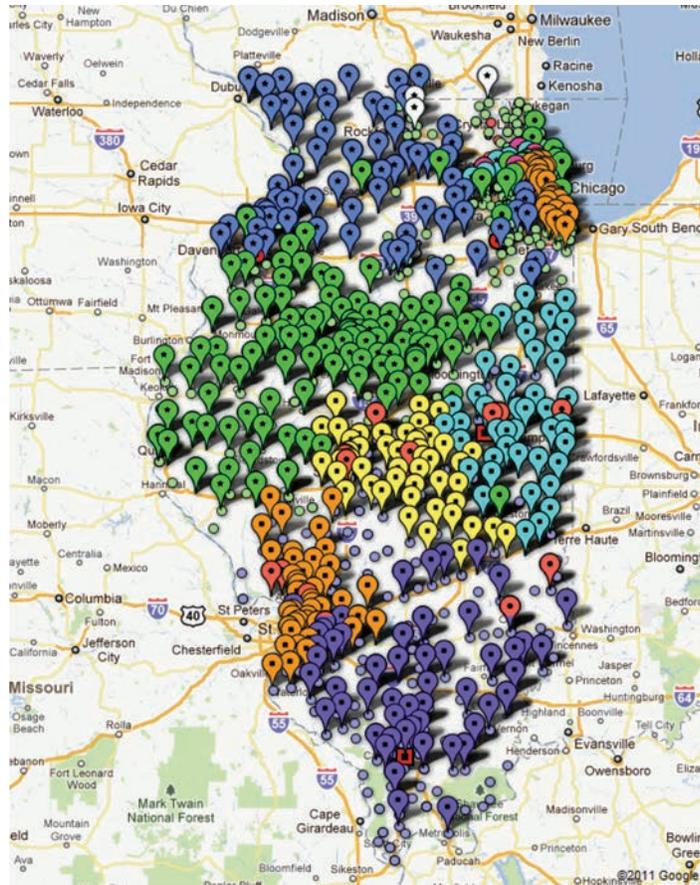


FIGURE 26: Maps of delivery locations (color coded by shared ILS or region (if not on shared ILS)  
<http://www.ila.org/deliverymaps>

## APPENDIX C: SUMMARY OF INTERVIEWS

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Interviews were conducted by phone with 12 key stakeholders. The following information was gleaned from these conversations.

### Priorities

1. New system must be fair and address the differing needs of libraries in the state
  - reduce work for library staff
  - priority is sorting and what happens in library (as little as possible should be happening in library)
  - efficient and better service but not on the backs of library staff
  - establish a service that recognizes the needs of big city versus small community library needs
  - need a delivery arrangement that works equally well for all libraries
  - it must be affordable, accessible, and provide a level playing field statewide
2. Improve, or at least maintain, service level for patrons
  - make service more efficient rather than reduce service level to save money
  - make delivery sustainable (so that libraries won't reduce service when money dries up)
  - improve turnaround time (sometimes it can take 5–6 days to get 10 miles down the road)
  - make it more accurate
  - provide unmediated requesting beyond local ILS
  - need better, more seamless interoperability between systems
3. Logistics
  - #1 priority is transportation: who's doing it and how
  - Focus on intra-hub item movements since 90% of materials stay within hub area
  - make transportation and sorting more efficient

### Positives

4. Everyone is proud of the history of resource-sharing in Illinois
5. Everyone considers delivery service very important
6. Generally, patrons and staff seem happy with system.
7. Libraries seem relatively open to a range of possibilities
8. State Library is committed to maintaining a robust resource-sharing environment

### Issues

9. Sometimes library needs are in conflict (e.g., better tracking and more efficiency but with less effort for libraries)
10. Many people are unaware of different ways of doing things like labeling and sorting
11. Delivery service varies from library to library and region to region (2–5 day per week delivery, community stops, USPS, on-call, public deliver to schools)
12. Perception of current system as having been composed of some bad decisions when funding was plentiful and now the state is suffering from those bad decisions
13. Some libraries send out thousands of items per week and others, of similar size, don't actively participate in resource-sharing
14. Only patrons on shared ILS have unmediated requesting — and then only for items in that shared ILS. Beyond the shared ILS, system operates like traditional ILL system (not state-of-the-art reciprocal borrowing or resource-sharing system)
15. No adopted standards about how quickly each library will act on a request
16. Not enough metrics to know what is really happening
  - actual costs unknown
  - trucks and maintenance, drivers and subs and workers comp and management staff, buildings and maintenance of those facilities, fuel costs
  - cost of using USPS (Colorado found that it cost 250% more to use USPS than courier delivery [Source: Fast Facts-Recent Statistics from the Library Research Service, April 24, 2007])
    - delivery volume and patterns unknown
  - how many items are typically picked up at each location?
  - who tends to lend to whom?
  - Within public libraries
    - lots of the same popular items move around (probably inefficiently)
    - efficiency of routes unknown
  - how much do you really save by having variable numbers of delivery days?
  - Is there a better order to run the routes?
  - Are the vehicles being used the right choice?
  - How would costs of running the routes change if you eliminated some or most of the hubs?
  - How much does cost of using USPS compare to including them on route (or is it a time issue?)
    - which services matter the most to patrons is unknown
  - is 24-hour turnaround important or is a 3-day wait acceptable, or is it the variability that is most problematic (I got this in 24 hours but I had to wait 6 days for that)
  - what would happen if limits were placed on numbers of holds or how long items were made available on the Holds Shelf?
  - don't know how many items that are requested and never picked up
17. State commitment to OCLC is good and bad
  - OCLC seen as better fit for larger libraries (not so much for rurals)
  - Use of OCLC Resource-Sharing for requesting is no longer state-of-the-art
  - OCLC Navigator or another product could provide for statewide unmediated system that is transparent and easier for staff and the public to use

## APPENDIX C: SUMMARY OF INTERVIEWS

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### Perceptions of Outsourcing

18. “Outsourcing is always cheaper” because of not having to pay driver benefits and workmen’s comp and trucks and their maintenance
19. Service needs to be “better, faster, cheaper (and this means outsourcing)”
20. Outsourcing would get rid of a lot of overhead
21. Most libraries are no longer in the delivery business — fact that IL is seems “antiquated”
22. Librarians consider delivery the most important thing the regions do for them
23. Consider outsource in small steps, not statewide
24. Conflicting outsourcing “studies”
  - outsourcing can save \$500K in savings within 2 years
  - outsourcing is more expensive
  - outsource studies have been flawed and are seen as a panacea
25. Fears about outsourcing
  - theft
  - regions may have no reason to exist without delivery
  - already have a big investment in drivers, trucks, buildings
  - fear of change
  - won’t be able to interface with other systems — too complicated
  - delivery vendors will have a harder time getting to rural locations (takes too long to get there)
  - once outsourced, it is difficult to bring it back under local control

### ILDS

26. Perception of ILDS mixed
  - Some see it as academic library delivery system
  - Others see it as Illinois delivery backbone
27. ILDS is efficient and provides key components of a good library delivery service
  - makes 5 stops per week to 153 locations
  - \$650,000
  - \$13/stop (\$3,250/location/year)
  - next day delivery
  - one hour delivery window
28. Key drawback to ILDS relates to sort requirement in libraries
  - library staff sort items
  - all items to same ILDS destination get sorted by location
  - before the scheduled pickup time (one hour window), each bag must be labeled
  - go to website, enter destination library, and number of items to each
  - print PDF and cut out labels
  - put labels on bags, and items in bag, zip tie
  - print manifest (verifies accuracy of outgoing shipment)
  - items to non-ILDS libraries go in one mixed bag (destination is regional hub)
    - ILDS vendor sorts 2,700 bags per day

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

### 1. Which RAILS delivery hub provides delivery services to your library? Answered question: 27 Skipped question: 0

	Response Percent	Response Count
Burr Ridge	11.1%	3
Coal Valley	14.8%	4
East Peoria	18.5%	5
Geneva	14.8%	4
Rockford	3.7%	1
Shorewood	22.2%	6
Wheeling	14.8%	4

### 2. What steps do you take in preparing outbound materials (i.e., items from your library being sent to another library)? Answered question: 27 Skipped question: 0

	Response Percent	Response Count
Look up code(s)	59.3%	16
Enter information into a computer program other than your integrated library system (i.e., online catalog)	22.2%	6
Fill out a routing slip	88.9%	24
Automatically generate a routing slip	22.2%	6
Rubber band or package material	88.9%	24
Other (please specify)	22.2%	
1. Sorting items into bins for delivery	Mon, Nov 14, 2011 2:58 P.M.	
2. Place items in bins — group items by library or sort area for sorting in Wheeling	Wed, Nov 9, 2011 11:23 A.M.	
3. Send it directly to the library	Tue, Nov 1, 2011 8:40 A.M.	
4. Trap the holds through our Workflows computer system	Mon, Oct 31, 2011 2:56 P.M.	
5. Some of these steps are not always necessary; it depends on how item was requested.	Mon, Oct 31, 2011 2:24 P.M.	
6. Rubber band AV only, no packaging	Mon, Oct 31, 2011 9:33 A.M.	

### 3. For outbound materials, do you create a routing slip that the receiving library can use as well? Answered question: 27 Skipped question: 0

	Response Percent	Response Count
Yes	22.2%	6
No	77.8%	21

### 4. If you do create a routing slip that the receiving library can use as well, is the slip automatically generated from a computer program? Answered question: 25 Skipped question: 2

	Response Percent	Response Count
Yes	4.0%	1
No	28.0%	7
Not Applicable	68.0%	17

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

5. Describe what sorting you do for interlibrary loan materials. Answered question: 27 Skipped question: 0	
1. We have different routes for our delivery and each route is color coded. For the libraries that we send a lot to, we sort the items for those libraries into one bin each. Otherwise, we sort the books onto shelves by library and then group them into bins by route. However, for routes we don't send a lot to, we sort the items directly into bags for those routes.	Mon, Nov 14, 2011 2:58 P.M.
2. Sort by library or by sort area to facilitate sorting in Wheeling	Wed, Nov 9, 2011 11:23 A.M.
3. To my other 3 buildings	Mon, Nov 7, 2011 8:54 A.M.
4. In state system delivery In state mail delivery (non-system) Out of state mail Electronic delivery	Fri, Nov 4, 2011 10:45 A.M.
5. Separate bins for two neighboring libraries	Thu, Nov 3, 2011 3:47 P.M.
6 LINC, Non-LINC	Wed, Nov 2, 2011 8:17 A.M.
7. Into bins according to the route number	Tue, Nov 1, 2011 6:20 P.M.
8. Do nothing, just mail it directly to the lending library. For borrowing I received it from Rail and it takes time for us to get the material. There is no truck stop in our library and there is no point for us to be in the routing list.	Tue, Nov 1, 2011 8:40 A.M.
9. If we have time — sort by color - blue/yellow/green — to help the driver	Mon, Oct 31, 2011 4:05 P.M.
10. We have bags and tubs. Our routing slips are for three different hubs, so we use those bags and tubs for those different hubs.	Mon, Oct 31, 2011 2:56 P.M.
11. Blue gets put into a tote. We were sorting for RVLG, CLNG, but won't be now.	Mon, Oct 31, 2011 2:26 P.M.
12. Sort by library — one bin per library or mixed bin — with items marked for correct destination	Mon, Oct 31, 2011 2:25 P.M.
13. Sort by ILDS destination code.	Mon, Oct 31, 2011 2:24 P.M.
14. N/A	Mon, Oct 31, 2011 12:51 P.M.
15. We sort into specific Library bags	Mon, Oct 31, 2011 11:18 A.M.
16. We sort incoming and outgoing into 2 different piles. Not sure about this question... and how best to answer it. ????	Mon, Oct 31, 2011 10:18 A.M.
17. Sort according to area materials are going to. ALS goes in one pile, NLS to another, etc.	Mon, Oct 31, 2011 10:10 A.M.
18. Firstly we pull the materials from the shelves. Second of all we trap the holds in our system by scanning the barcode numbers of each book and fill out the borrowing library and the lending library's name on the pink slip. Lastly we place the items in the bins.	Mon, Oct 31, 2011 10:03 A.M.
19. Sort into bins of 4 delivery routes; plus, to expedite, sort to individual bins for 3 borrowing libraries within our route #	Mon, Oct 31, 2011 9:33 A.M.
20. No sorting...just put all outgoing items in bag	Mon, Oct 31, 2011 7:07 A.M.
21. I'm a small medical library so my sorting consists of putting everything on a table for pickup once a week. Items going to the same library are rubber-banded together.	Mon, Oct 31, 2011 6:32 A.M.
22. The ILS tells staff where to send the materials through a series of assigned delivery codes. Codes indicate delivery hub through an associated color (last letter of the codes are B for blue [Joliet area], G for green [western IL], or Y for yellow [Rockford area]) and by delivery route. For example, my library's code is MRBB-2 (Blue hub, route 2). Staff add the library's code to color-coded sorting slips and affix the slips to the item using rubber bands. Items that are going to another delivery hub are placed in bags; items that stay in the hub are sorted by route. Altogether there are two canvas bags and three hard plastic bins for sorting.	Sun, Oct 30, 2011 9:31 P.M.
23. None (we are a small library)	Fri, Oct 28, 2011 5:58 P.M.
24. Former PALS hub locations are bundled and public ILDS are segregated; CARLI are handled separately	Fri, Oct 28, 2011 4:35 P.M.
25. Interlibrary Loan materials are sorted the same as other outgoing materials with routing slips (with codes and rte #s)—we do generally include a return routing slip with ILL items. Items go into either Rte 1 or Mixed bin.	Fri, Oct 28, 2011 3:54 P.M.
26. ON ITEM WRITE — HOLD if it was requested from us OR WRITE — RETURN when send materials back to lending library	Fri, Oct 28, 2011 2:23 P.M.
27. Distribute to staff member	Fri, Oct 28, 2011 2:07 P.M.

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

6. Describe the bins, totes, or bags you use for interlibrary loan materials. Answered question: 25 Skipped question: 2	
1. We use large blue bins that stack as well as canvas bags for routes that we do not send much to.	Mon, Nov 14, 2011 2:58 P.M.
2. Blue plastic bins with tops that flip over for easy closing	Wed, Nov 9, 2011 11:23 A.M.
3. Hard plastic bins and totes for media items	Mon, Nov 7, 2011 8:54 A.M.
4. Green canvas bags	Fri, Nov 4, 2011 10:45 A.M.
5. We use the blue bins	Thu, Nov 3, 2011 3:47 P.M.
6. DLS Van Bags	Wed, Nov 2, 2011 8:17 A.M.
7. large grey bins	Tue, Nov 1, 2011 6:20 P.M.
8. Pretty much only heavy duty bags	Mon, Oct 31, 2011 4:05 P.M.
9. The tubs are red. approx. 15" long, 14" wide, 13" deep. The tote bags are canvas, 15" long, 15" wide, 13 1/2" deep	Mon, Oct 31, 2011 2:56 P.M.
10. The totes are for the blue area and have two handles. Use blue recycle type bins for the Green and Yellow area, which we like better.	Mon, Oct 31, 2011 2:26 P.M.
11. Hard plastic bins with closed top. Clear plastic pocket on outside to hold library destination	Mon, Oct 31, 2011 2:25 P.M.
12. Mail cart for the bags provided by CARLI.	Mon, Oct 31, 2011 2:24 P.M.
13. Delivery bag is occasionally used.	Mon, Oct 31, 2011 12:51 P.M.
14. Canvas bags	Mon, Oct 31, 2011 11:18 A.M.
15. 5 or 6 delivery bags per day	Mon, Oct 31, 2011 10:18 A.M.
16. Use ILDS purple bags	Mon, Oct 31, 2011 10:10 A.M.
17. We use white colored bins with MLS logo showing in front.	Mon, Oct 31, 2011 10:03 A.M.
18. Gray bins used by Burr Ridge for delivery. We do not use additional individual packaging to send our materials.	Mon, Oct 31, 2011 9:33 A.M.
19. Tote bag from DLS	Mon, Oct 31, 2011 7:07 A.M.
20. I only use a large tote loaned to me from the system headquarters when I have several heavy medical books going out to other libraries.	Mon, Oct 31, 2011 6:32 A.M.
21. Items that are going to another delivery hub are placed in bags; items that stay in the hub are sorted by route. Altogether my library has two canvas bags and three hard plastic bins (along with several additional stacked bins for overflow) for sorting.	Sun, Oct 30, 2011 9:31 P.M.
22. None	Fri, Oct 28, 2011 5:58 P.M.
23. We have red or yellow plastic bins for RAILS and public ILDS; we have purple zippered pouches for CARLI	Fri, Oct 28, 2011 4:35 P.M.
24. We use the blue plastic bins that were provided by NSLS—labeled with routes or individual library codes if there are enough for 1 library—we have 4 bins total.	Fri, Oct 28, 2011 3:54 P.M.
25. DELIVERY BAG PROVIDED BY SYSTEM	Fri, Oct 28, 2011 2:23 P.M.

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

### 7. What steps do you undertake for receiving materials (i.e., items returned to your library that have been borrowed by another library)? Answered question: 26 Skipped question: 1

	Response Percent	Response Count
Scan items to record return of item	96.2%	25
Additional keystrokes are required when a scan triggers as hold (do not check this box if hold slip prints out automatically)	30.8%	8
Other (please specify)	15.4%	4
1. Take off rubber bands or other packaging	Mon, Nov 14, 2011 2:58 P.M.	
2. Not applicable. We only have online collections, no print.	Tue, Nov 1, 2011 8:40 A.M.	
3. Record item returned in Excel spreadsheet.	Mon, Oct 31, 2011 2:24 P.M.	
4. Update information into a computer program.	Mon, Oct 31, 2011 12:51 P.M.	

### 8. Are holds (items being delivered to fill a hold) and returns (items being returned for reshelving) mixed together? Answered question: 27 Skipped question: 0

	Response Percent	Response Count
Yes	92.6%	25
No	7.4%	2

### 9. If there is any packaging for items received? If yes, describe your process for unpackaging. Answered question: 19 Skipped question: 8

1. Take off rubber band, remove paper from rubber band that lists location being sent to and then tape. We typically put all the rubber bands with paper in a bin and then work on undoing all the tape later in the day.	Mon, Nov 14, 2011 2:58 P.M.
2. We take items out of the delivered bins, remove rubber bands, remove and recycle labeling, check items in	Wed, Nov 9, 2011 11:23 A.M.
3. Open to reuse	Fri, Nov 4, 2011 10:45 A.M.
4. Open packaging, hold for use to return item to home library	Wed, Nov 2, 2011 8:17 A.M.
5. Open the package, keep the slip, send the item to customer informing of the due date.	Tue, Nov 1, 2011 8:40 A.M.
6. We do not circ AV of any sort — print only — seems not to be a need for additional “packaging”	Mon, Oct 31, 2011 4:05 P.M.
7. There are bubble bags used for DVD’s, CD’s We simply take them out of the bag and reuse them. We also use cardboard to protect magazines going and coming and for slim, easily bent material. We keep a supply handy at the counter.	Mon, Oct 31, 2011 2:56 P.M.
8. Don’t understand this question.	Mon, Oct 31, 2011 2:26 P.M.
9. Limited only for true ILL items coming from outside of our consortium	Mon, Oct 31, 2011 2:25 P.M.
10. Yes. Cut the plastic tie from the zipped bag and unzip the bag. Remove the label from the front pocket of the bag.	Mon, Oct 31, 2011 2:24 P.M.
11. We toss packaging unless it is for a book we borrowed, then we return information to the lending library with the book we are returning.	Mon, Oct 31, 2011 12:51 P.M.
12. Not often, occasionally for unusual circumstances	Mon, Oct 31, 2011 11:18 A.M.
13. Not usually. Most come or go in purple bags.	Mon, Oct 31, 2011 10:10 A.M.
14. Usually DVD’s and CD-ROM’s come in bubble bags. When the items arrive, we take the items out of their bags or protective cases. Then scan the barcodes and place the items back in the containers that came with and place them on the circulation shelf for the patrons who ordered them.	Mon, Oct 31, 2011 10:03 A.M.

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

9. If there is any packaging for items received? If yes, describe your process for unpackaging. Answered question: 19 Skipped question: 8	
15. Our receiving clerk takes items out of envelopes and boxes; removes rubber bands; removes routing slips for returned items.	Mon, Oct 31, 2011 9:33 A.M.
16. Remove rubber bands and paper routing slip	Mon, Oct 31, 2011 7:07 A.M.
17. Only for fragile items—Bubble wrap for store-issued jewel cases and cardboard or folders for magazines.	Sun, Oct 30, 2011 9:31 P.M.
18. Items are left in a zippered cloth bag left in an "in box" on the front desk. I take items out of the bag, and later remove rubber bands as I process each book	Fri, Oct 28, 2011 5:58 P.M.
19. Usually items are returned to us in bins—sometimes in packaging that individual libraries might generally use for their items (other protective containers). We have to unwrap the bundling which usually includes routing slips (reusable) and/or rubber bands.	Fri, Oct 28, 2011 3:54 P.M.

10. What days of the week do you receive your deliveries or do you have to call? If you call, under what conditions? Answered question: 27 Skipped question: 0	
1. M – F	Mon, Nov 14, 2011 2:58 P.M.
2. Monday–Friday	Wed, Nov 9, 2011 11:23 A.M.
3. Tuesday and Thursday	Mon, Nov 7, 2011 8:54 A.M.
4. Monday and Thursday	Fri, Nov 4, 2011 10:45 A.M.
5. Monday thru Friday	Thu, Nov 3, 2011 3:47 P.M.
6. Van deliveries are Monday – Friday	Wed, Nov 2, 2011 8:17 A.M.
7. Monday thru Friday	Tue, Nov 1, 2011 6:20 P.M.
8. N/A. I receive them from RAIL from mail.	Tue, Nov 1, 2011 8:40 A.M.
9. Every day of the school week except Tuesday — seems to be based on our previous year's ILL	Mon, Oct 31, 2011 4:05 P.M.
10. We get van delivery service 5 days a week.	Mon, Oct 31, 2011 2:56 P.M.
11. We get delivery everyday but Tues and Sat.	Mon, Oct 31, 2011 2:26 P.M.
12. Daily — first thing in the morning!	Mon, Oct 31, 2011 2:25 P.M.
13. Monday — Friday. We only call when there are problems.	Mon, Oct 31, 2011 2:24 P.M.
14. Tues. and Fri.	Mon, Oct 31, 2011 12:51 P.M.
15. Monday – Friday	Mon, Oct 31, 2011 11:18 A.M.
16. 5 days, Mon. – Fri.	Mon, Oct 31, 2011 10:18 A.M.
17. Monday–Friday Do not have to call	Mon, Oct 31, 2011 10:10 A.M.
18. We normally receive deliveries Monday through Saturday. On rare occasions, we may call the MLS delivery room if we do not receive an item on the expected delivery date or if we receive another library's delivery instead of ours.	Mon, Oct 31, 2011 10:03 A.M.
19. Monday – Friday regularly	Mon, Oct 31, 2011 9:33 A.M.
20. This varies. I'd like a more regular schedule if Not going to be daily—2–3 times a week	Mon, Oct 31, 2011 7:07 A.M.
21. Wednesdays	Mon, Oct 31, 2011 6:32 A.M.
22. We automatically receive delivery Mon–Friday.	Sun, Oct 30, 2011 9:31 P.M.
23. We have van-on-demand service. We email for a pickup when 3 or 4 books are waiting, or when we want an item to go out right away. Usually we just wait for the van to deliver an item.	Fri, Oct 28, 2011 5:58 P.M.
24. RAILS is M/W/F; CARLI is all 5 days	Fri, Oct 28, 2011 4:35 P.M.
25. We receive delivery Monday through Friday. We do not receive items on any holidays that the library may be closed—Christmas, Thanksgiving etc.	Fri, Oct 28, 2011 3:54 P.M.
26. EVERY TUESDAY & EVERY FRIDAY	Fri, Oct 28, 2011 2:23 P.M.
27. Call or email	Fri, Oct 28, 2011 2:07 P.M.

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

11. What time does delivery come? How big is the delivery time window? Do you have staff around at the time of delivery (e.g., to ensure you can get everything checked in and on the hold shelf quickly)? Answered question: 26 Skipped question: 1	
1. Delivery is usually between 8:15 and 9 A.M.. We try to have a staff member here, but the delivery men have codes to get into the building if we do not.	Mon, Nov 14, 2011 2:58 P.M.
2. 6:30 A.M. — we do have staff to unload the bins etc at that time — check in usually begins about 8:30	Wed, Nov 9, 2011 11:23 A.M.
3. 8:30 A.M.	Mon, Nov 7, 2011 8:54 A.M.
4. 7:00–8:30 A.M. Items are delivered to our hospital switchboard, not to the library	Fri, Nov 4, 2011 10:45 A.M.
5. Delivery arrives before the library opens. Yes there is staff available	Thu, Nov 3, 2011 3:47 P.M.
6. Between 9–10 A.M.; items are processed immediately	Wed, Nov 2, 2011 8:17 A.M.
7. N/A	Tue, Nov 1, 2011 8:40 A.M.
8. Early morning — admitted by Security to High School	Mon, Oct 31, 2011 4:05 P.M.
9. Delivery occurs between 8:30 A.M. and 9:15 A.M. Staff is at hand to complete the process before the doors open at 10:00 A.M.	Mon, Oct 31, 2011 2:56 P.M.
10. Varies by day. We have staff when the bins come and they are handled right away.	Mon, Oct 31, 2011 2:26 P.M.
11. Delivery is here by the time we open at 9 A.M. Delivery window 8:15 – 9 A.M. Staff are here at 9 A.M.	Mon, Oct 31, 2011 2:25 P.M.
12. Usually between 8 A.M. – 1 P.M. Yes, staff is on hand, but a smaller delivery time window would be helpful.	Mon, Oct 31, 2011 2:24 P.M.
13. 8:00 A.M. – 8:30 A.M.	Mon, Oct 31, 2011 12:51 P.M.
14. Delivery twice a day always. occasionally three times daily. If there is an extra delivery, it's early Monday morning. Regular delivery is around 11:30 and 2:00. Yes, we have staff available at those times.	Mon, Oct 31, 2011 11:18 A.M.
15. Mostly mornings	Mon, Oct 31, 2011 10:18 A.M.
16. Between 9:30-10:00 A.M. Unless driver has an unforeseen problem deliveries are usually delivered between these times. There is almost always someone available at time of delivery. We have a small staff so if someone happens to be out deliveries sometimes wait to get checked in.	Mon, Oct 31, 2011 10:10 A.M.
17. Usually we receive the deliveries between 9:00 A.M. and 9:30 A.M. in the morning. We always have a library employee available to process the items quickly and notify the prospective patrons on time.	Mon, Oct 31, 2011 10:03 A.M.
18. Delivery to our library is before 8 A.M. (library is closed, some staff here). Staff begins processing at 9 A.M.	Mon, Oct 31, 2011 9:33 A.M.
19. Not sure when delivery comes. Staffing is available as needed.	Mon, Oct 31, 2011 7:07 A.M.
20. Usually comes at 9 A.M. . . .sometimes as late as 10 A.M. I'm usually here to check items in. (One person library)	Mon, Oct 31, 2011 6:32 A.M.
21. We receive our in-transit items before 8:00 A.M., which is when the earliest staff start their shifts. This gives us an hour before we open to un-rubber band and sort items being returned to us versus items received to fill holds.	Sun, Oct 30, 2011 9:31 P.M.
22. Don't know what time the van comes. We check delivery box daily about 9 A.M. This works well for us.	Fri, Oct 28, 2011 5:58 P.M.
23. RAILS delivery arrives between 8:00 – 8:15 A.M.; CARLI is anytime between 11:30 and 12:30 Materials are handled ASAP so we can catch our students before they leave campus for the day	Fri, Oct 28, 2011 4:35 P.M.
24. Delivery time usually 7–7:30 A.M. when we have limited staff—ILL clerk who begins processing ILL items at that time. Other check-ins done after 9 A.M.	Fri, Oct 28, 2011 3:54 P.M.
25. TUESDAYS BY 10:30 A.M.; STAFF IS PRESENT FRIDAYS BY 9:00 A.M. STAFF IS PRESENT	Fri, Oct 28, 2011 2:23 P.M.
26. Morning	Fri, Oct 28, 2011 2:07 P.M.

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

### 12. Do you always get the day's delivery back on the shelf that same day or are you backlogged? If backlogged, how many days are you backlogged (e.g., we still have items that need to be returned to the shelves that were delivered 2 days ago)? Answered question: 26 Skipped question: 1

1. We always get the days delivery back on the shelf the same day.	Mon, Nov 14, 2011 2:58 P.M.
2. We always check in van items asap after 8:30 and are usually done by 9:30 or 10 A.M. We never allow van items for holds and returns to back up	Wed, Nov 9, 2011 11:23 A.M.
3. Same day	Mon, Nov 7, 2011 8:54 A.M.
4. Yes	Fri, Nov 4, 2011 10:45 A.M.
5. Usually back on shelf same day	Thu, Nov 3, 2011 3:47 P.M.
6. Same day	Wed, Nov 2, 2011 8:17 A.M.
7. We get them back on the shelf the same day, if not definitely the next day	Tue, Nov 1, 2011 6:20 P.M.
8. N/A	Tue, Nov 1, 2011 8:40 A.M.
9. We are able to handle it daily	Mon, Oct 31, 2011 4:05 P.M.
10. Always on the shelf the same day.	Mon, Oct 31, 2011 2:56 P.M.
11. We handle items each day and they are on the shelf within 24 hours.	Mon, Oct 31, 2011 2:26 P.M.
12. 24 hr turnaround time	Mon, Oct 31, 2011 2:25 P.M.
13. We almost always get the items back on the shelf the same day.	Mon, Oct 31, 2011 2:24 P.M.
14. Yes, same day.	Mon, Oct 31, 2011 12:51 P.M.
15. Yes. We always get them back on the shelf the same day	Mon, Oct 31, 2011 11:18 A.M.
16. Yes, material is back on the shelf the same day	Mon, Oct 31, 2011 10:18 A.M.
17. Same as above. Most of the time items are shelved same day and we very rarely are backlogged.	Mon, Oct 31, 2011 10:10 A.M.
18. We usually get the returned items back on the shelves the same day when they were delivered. Items may get backlogged very rarely if there is no one available to process them	Mon, Oct 31, 2011 10:03 A.M.
19. The items are processed the same day. Returned items are checked in the same day to return to shelf and items coming in for our patrons are processed the same day as delivery.	Mon, Oct 31, 2011 9:33 A.M.
20. Same day	Mon, Oct 31, 2011 7:07 A.M.
21. I have a volunteer who reshelves once a week on Wednesdays, so items are usually back on the shelf the same day they're delivered.	Mon, Oct 31, 2011 6:32 A.M.
22. We get it processed daily.	Sun, Oct 30, 2011 9:31 P.M.
23. We usually process the items the same day we receive them. Sometimes there is a one-day delay	Fri, Oct 28, 2011 5:58 P.M.
24. Same day always	Fri, Oct 28, 2011 4:35 P.M.
25. As long as our shelving is kept up items are back on the shelf within the day. Otherwise they are not reshelfed separately, but put back on shelf along with items returned by patrons at the library.	Fri, Oct 28, 2011 3:54 P.M.
26. GENERALLY ALL IS DONE SAME DAY. OCCASIONALLY IF SHORT ON STAFF IT TAKES ANOTHER DAY TO DO.	Fri, Oct 28, 2011 2:23 P.M.

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

### 13. Does the courier always pick up everything you have ready or can they sometimes not fit everything in their vehicle? Answered question: 26 Skipped question: 1

	Response Percent	Response Count
Always picks up everything we have ready	100.0%	26
Sometimes delivery can't fit everything we have ready in their vehicle	0.0%	0

### 14. Are you amenable to the courier making the delivery while the library is closed? Answered question: 26 Skipped question: 1

	Response Percent	Response Count
Yes	61.5%	16
No	38.5%	10

### 15. How would you rate your current delivery service? Answered question: 26 Skipped question: 1

	Response Percent	Response Count
Exceeds my expectation	34.6%	9
Meets my expectation	61.5%	16
Room for improvement	3.8%	1

## APPENDIX D: RAILS Survey Results (Downloaded 12/1/11)

16. Please provide any comments you have regarding your current delivery service. Answered question: 17 Skipped question: 10	
1. I would love to have a delivery service that is more streamlined from a staff perspective. We spend a lot of staff time getting items ready and sorted before the delivery van comes. I feel that part of delivery is the sorting and that we should be able to have them sort. I also feel that we are repeating a lot of steps. We print out a routing slip, but we can't use it so we tape it on the book then take it off after we hand write a routing slip on a colored piece of paper and rubber band the items. This seems to take an awfully long time. With limited resources and shrinking budgets, anything we can do to maximize the staff we have while still getting items to patrons in a timely manner is crucial.	Mon, Nov 14, 2011 2:58 P.M.
2. Darren is a great from the Wheeling hub — efficient, on time, kind, cheerful, adjust if we forget to close the box tops (for example) — and Don is most helpful when I call for a special delivery of boxes of AV material to take downstate.	Wed, Nov 9, 2011 11:23 A.M.
3. Approximately 80% of our deliveries are within our LLSAP geographic region. Our delivery service currently meets our expectations because our hub is located within 40 miles of our library, providing quick delivery of materials. Our East Peoria hub was specifically designed, built and staffed for the purpose of efficient and cost effective delivery to Illinois libraries and has been successful in meeting those goals.	Fri, Nov 4, 2011 10:45 A.M.
4. We are early on the route and have been for many years. Delivery while the library is closed is not a problem for us and we prefer it. Staff get an early start on checking items in.	Thu, Nov 3, 2011 3:47 P.M.
5. On question 14...we would be amenable as long as it is after 8:30 A.M., we start at 8:30 A.M. and open the Library at 9:00 A.M.	Wed, Nov 2, 2011 8:17 A.M.
6. Things are "still" running smoothly.	Mon, Oct 31, 2011 4:05 P.M.
7. Current van delivery system is top notch. Couriers are excellent at what they do. It does happen that during the sorting process a book will get put in our tubs that belongs to another library, but that doesn't happen too often. We love that they came before the library is open so we can use the counter space to get the books ready. The use of bags and tubs works well. We also like that we get 5 days a week service.	Mon, Oct 31, 2011 2:56 P.M.
8. We love and need daily, early morning delivery.	Mon, Oct 31, 2011 2:25 P.M.
9. It's great — saves us money on shipping, efficient, prompt.	Mon, Oct 31, 2011 12:51 P.M.
10. I do not like the canvas bags. I don't think they offer the delivery before we opened.	Mon, Oct 31, 2011 11:18 A.M.
11. It would be nice to have libraries NOT rubber band several books together in one bundle. We are also concerned about OUR books coming back with the delivery label taped to the book. This is a real problem because it leaves a residue on the book or damages the cover. Thanks, Alpha Park Library	Mon, Oct 31, 2011 10:18 A.M.
12. We are pleased with the delivery service we receive. Our driver is courteous and dependable.	Mon, Oct 31, 2011 10:10 A.M.
13. Works well for us.	Mon, Oct 31, 2011 9:33 A.M.
14. At one time, I had delivery service 5 days a week but went down to 1 when there were budget cuts. There are times when it's hard to wait a week to get a book I've ordered for a physician or staff. On the other hand, I am very grateful for at least the service I do have.	Mon, Oct 31, 2011 6:32 A.M.
15. It'd be great to not have to do as much with rubber bands or figure out what delivery items are ours vs. what's filling a hold (these are both major time consuming tasks). Aside from these, I am happy with the time of day that we receive delivery, the frequency we receive delivery, and the speed in which an item travels from one library to another.	Sun, Oct 30, 2011 9:31 P.M.
16. In regards to question 14—NSLS delivery persons have a code for our security system. Any other couriers would need to make deliveries when there is staff present (generally after 6:30 A.M. M–F; 9 A.M. sat; and 1 P.M. Sundays), even if the library is closed to patrons. We are very happy with our current system—it works well.	Fri, Oct 28, 2011 3:54 P.M.
17. AS A STATE INSTITUTION, NO KEY CAN BE GIVEN TO A NON-STATE EMPLOYEE. DUE TO LOCATION OF LIBRARY BLDG. DELIVERIES MUST BE MADE ONLY TO LIBRARY BLDG ALSO, IT WOULD BE HELPFUL TO HAVE MORE THAN 2 DELIVERY DAYS PER WEEK SINCE TRUCK IS IN TOWN EVERY WEEKDAY FOR OTHER "BIGGER" LIBRARIES. A STOP COULD BE MADE HERE TO THIS NET LENDER LIBRARY, TOO, PLEASE:)	Fri, Oct 28, 2011 2:23 P.M.

## APPENDIX E: IHLS SURVEY RESULTS

### 1. Which IHLS delivery hub provides delivery services to your library? Answered question: 28 Skipped question: 0

	Response Percent	Response Count
Carterville	21.4%	6
Champaign	25.0%	7
Decatur	25.0%	7
Edwardsville	28.6%	8

### 2. What steps do you take in preparing outbound materials (i.e., items from your library being sent to another library)? Answered question: 28 Skipped question: 0

	Response Percent	Response Count
Look up code(s)	35.7%	10
Enter information into a computer program other than your integrated library system (i.e., online catalog)	7.1%	2
Fill out a routing slip	35.7%	10
Automatically generate a routing slip	67.9%	19
Rubber band or package material	89.3%	25
Other (please specify)	28.6%	8

### 2. What steps do you take in preparing outbound materials (i.e., items from your library being sent to another library)? Answered question: 28 Skipped question: 0

1. N/A	Tue, Nov 29, 2011 9:16 A.M.
2. DOG THEM IF APPLICABLE	Mon, Nov 14, 2011 10:28 A.M.
3. All our material goes via ILDS since we are Academic	Mon, Nov 14, 2011 9:26 A.M.
4. We usually do whatever is asked of us. Our patrons appreciate the ability to bring in materials from other libraries.	Sat, Nov 12, 2011 12:46 P.M.
5. Sort items by destination and bundle together before putting into tub. Libraries who get delivery after our library are bundled together with a DOG tag on the bundle. These bundles are left on the top of the tubs for drivers.	Fri, Nov 11, 2011 3:06 P.M.
6. Routing slip process is different for in-system vs. non-system requests	Fri, Nov 11, 2011 12:28 P.M.
7. Because hub policy requires it, we also highlight the name of the destination	Fri, Nov 11, 2011 9:45 A.M.
8. Sort and label bags	Fri, Nov 11, 2011 7:57 A.M.

### 3. For outbound materials, do you create a routing slip that the receiving library can use as well? Answered question: 27 Skipped question: 1

	Response Percent	Response Count
Yes	33.3%	9
No	66.7%	18

### 4. If you do create a routing slip that the receiving library can use as well, is the slip automatically generated from a computer program? Answered question: 25 Skipped question: 2

	Response Percent	Response Count
Yes	7.7%	2
No	23.1%	6
Not Applicable	69.2%	18

## APPENDIX E: IHLS SURVEY RESULTS

5. Describe what sorting you do for interlibrary loan materials. Answered question: 28 Skipped question: 0	
1. We are a non-lending school library.	Tue, Nov 29, 2011 9:16 A.M.
2. We try to band materials (when possible) that are going to the same library. We separate the dog items.	Wed, Nov 16, 2011 4:47 P.M.
3. Paging list — we rubber band items going to the same library together. In the morning, the book drop items also are rubber banded together if going to the same library. OCLC items are put into the appropriate basket for staff to process.	Wed, Nov 16, 2011 2:48 P.M.
4. We have lists of libraries that receive their deliveries directly from our delivery person the same day he picks them up from us. This entails separating them from all the items going out, placing them in a tub or a bag and labeling them with the receiving library's code. The list is different each day of the week and varies between 6 and 9 libraries.	Tue, Nov 15, 2011 2:41 P.M.
5. The items are sorted by agency code alphabetically. The top of the bag is the beginning of the alphabet. Items going to the same agency are rubber banded together using a 1/4 rubber band.	Tue, Nov 15, 2011 10:34 A.M.
6. No sorting	Mon, Nov 14, 2011 3:00 P.M.
7. When the staff puts the items in the tub we leave out all DVDs, CDs, and Audios to be placed on top of the tub once the tub fills up so as not to be crushed by heavy books. Items going to a library after us on the same delivery day are put in separate totes. When a shipment is received we sort the books by our own coming back and the ones that are for patrons.	Mon, Nov 14, 2011 2:34 P.M.
8. Sort by library and rubber band the materials for each library. Sort "down the route" from other materials.	Mon, Nov 14, 2011 1:45 P.M.
9. Put into provided tubs	Mon, Nov 14, 2011 1:16 P.M.
10. At MPL we have designated shelves. One side of our cove has the ten libraries that we borrow from, and the other side has the mix and DTR shelves. Each morning after lists are pulled a staff member takes the items, rubber bands them and then puts them into bags and labels bags. Occasionally when we have an entire bag to go to one library beside CHN and URN, we will forgo rubber bands and just mark that bag as a complete bag (normally for Charleston).	Mon, Nov 14, 2011 1:16 P.M.
11. We place them in a bin with the routing slip. If we have several items going to the same library we rubber band them together.	Mon, Nov 14, 2011 11:25 A.M.
12. We are a small special library, only sending out one to three items at a time. We don't do any special sorting.	Mon, Nov 14, 2011 11:20 A.M.
13. None. The materials are delivered directly to me by a school staff member, who picks them up from another library in the district where the items have been sorted.	Mon, Nov 14, 2011 10:32 A.M.
14. DOG ITEMS	Mon, Nov 14, 2011 10:28 A.M.
15. Separate DECATUR PUBLIC for driver, mark 2 DOG locations on the route after us.	Mon, Nov 14, 2011 10:02 A.M.
16. All outgoing materials are placed in a plastic tub or canvas bag. If the materials are going to another library on the route that day, we place them on top of the plastic tub so the driver can drop them off when they make that stop.	Mon, Nov 14, 2011 9:59 A.M.
17. LITTLE TO NONE. TRY TO CATCH BOOKS THAT ARE NEXT ON ROUTE AND MARK WOULD BE ALL	Mon, Nov 14, 2011 9:28 A.M.
18. Academics get routed directly via ILDS, all other material is via ILDS to hub for distribution.	Mon, Nov 14, 2011 9:26 A.M.
19. We don't do any sorting here	Mon, Nov 14, 2011 9:04 A.M.
20. Right now, the SILNET users' group is doing DOG. It seems to be working well.	Tue, Nov 15, 2011 2:41 P.M.
21. Sort by destination library. Sort our the materials going to libraries after us	Fri, Nov 11, 2011 3:06 P.M.
22. We sort and label the items that are on the route after us so that they can be delivered the same day instead of going back to the hub and being delivered the next day.	Fri, Nov 11, 2011 12:28 P.M.
23. Sort into bags for each destination (sometimes an individual library, sometimes a delivery hub)	Fri, Nov 11, 2011 12:28 P.M.
24. We: print the "paging list" pull items from the shelves, check in items to create a routing slip, either tape the routing slip onto the item with REMOVABLE tape, or place a rubber band around the item and tape the routing slip with regular tape, place most items in totes to be returned to the central hub to be sorted and sent on to other libraries, place items to be delivered to libraries who come after our library on a separate cart so the driver can sort them on the route and deliver them to the next library on same day.	Fri, Nov 11, 2011 10:20 A.M.
25. We have 4 types of bins: DOG, Decatur Public, Lincoln Library (Springfield Public), and mix (all other libraries). We also have a separate bin for OCLC materials (i.e. materials outside of our hub, including on ILDS routes).	Fri, Nov 11, 2011 9:45 A.M.
26. I receive my delivery through ILDS therefore I sort all ILDS libraries separately from LTLS libraries. All LTLS library books go in one bag and ILDS libraries each receive their own bag.	Fri, Nov 11, 2011 8:58 A.M.
27. Sort items as much as possible by library & band together; if enough for one library, devote an entire bag to that library and label. Sort out the items for libraries after ours on the route, label as such and place on top	Fri, Nov 11, 2011 7:57 A.M.
28. We sort "down the route" into one bag, rubber band items together by location for the rest of the bags. We have a separate bag for Champaign and for Urbana.	Fri, Nov 11, 2011 7:21 A.M.

## APPENDIX E: IHLS SURVEY RESULTS

6. Describe the bins, totes, or bags you use for interlibrary loan materials. Answered question: 27 Skipped question: 1	
1. Plastic totes	Wed, Nov 16, 2011 4:47 P.M.
2. Standard Rubber Maid storage bins are used.	Wed, Nov 16, 2011 2:48 P.M.
3. Large plastic tubs, big and small canvas bags, folder sized canvas envelope type bags and, occasionally we have to resort to plastic shopping bags!	Tue, Nov 15, 2011 2:41 P.M.
4. 16" x 11.5" x 16" canvas bag as provided by the system	Tue, Nov 15, 2011 10:34 A.M.
5. Bins (plastic)	Mon, Nov 14, 2011 3:00 P.M.
6. Tupperware containers are used, which the staff like as they are easy to use and put a lid on. The schools who pick up at my library use big canvas bags.	Mon, Nov 14, 2011 2:34 P.M.
7. Heavy canvas bags provided by library system	Mon, Nov 14, 2011 1:45 P.M.
8. Totes (tubs)	Mon, Nov 14, 2011 1:16 P.M.
9. We use the bags provided, but because of frequently not having enough bags we purchased our own bags from the same company that LINC uses. The difference is that our bags have green handles and have our name and code stitched on them. We went for stitching in case with the expanded system we received a new code, so we could cut out the code and have it restitched.	Mon, Nov 14, 2011 1:16 P.M.
10. We use big rubbermaid bins	Mon, Nov 14, 2011 11:25 A.M.
11. One canvas bag	Mon, Nov 14, 2011 11:20 A.M.
12. I use a large canvas tote.	Mon, Nov 14, 2011 10:32 A.M.
13. PLASTIC BINS PROVIDED BY SYSTEM	Mon, Nov 14, 2011 10:28 A.M.
14. Decatur gray bins	Mon, Nov 14, 2011 10:02 A.M.
15. Plastic tubs or canvas bags	Mon, Nov 14, 2011 9:59 A.M.
16. WE USE LARGE CANVAS BAGS	Mon, Nov 14, 2011 9:28 A.M.
17. ILDS bags.	Mon, Nov 14, 2011 9:26 A.M.
18. Is put in with our normal delivery tub for SHLS to sort.	Mon, Nov 14, 2011 9:04 A.M.
19. We have some of the blue tubs, totes and blue "legal" sized bags for smaller items.	Sat, Nov 12, 2011 12:46 P.M.
20. Tubs are 22" x 16" x 9" with a snap on lid.	Fri, Nov 11, 2011 3:06 P.M.
21. The bins are gray and stackable. The bags are white and can be folded for storage when not in use	Fri, Nov 11, 2011 12:28 P.M.
22. Re-usable bags that can be zipped and fastened shut, with an external window for a destination/routing slip	Fri, Nov 11, 2011 12:28 P.M.
23. We use "Rubbermaid" plastic totes, which measure approximately 18" X 24" and are approximately 8" deep.	Fri, Nov 11, 2011 10:20 A.M.
24. Gray bins without lids	Fri, Nov 11, 2011 9:45 A.M.
25. ILDS uses purple delivery bags. On occasion I uses boxes for delivery of cataloging items to LTLS or videos/DVDs to ILDS libraries so they are more protected.	Fri, Nov 11, 2011 8:58 A.M.
26. Large canvas bags	Fri, Nov 11, 2011 7:57 A.M.
27. We use canvas bags with handles on them.	Fri, Nov 11, 2011 7:21 A.M.

## APPENDIX E: IHLS SURVEY RESULTS

### 7. What steps do you undertake for receiving materials (i.e., items returned to your library that have been borrowed by another library)? Answered question: 28 Skipped question: 0

	Response Percent	Response Count
Scan items to record return of item	92.9%	26
Additional keystrokes are required when a scan triggers as hold (do not check this box if hold slip prints out automatically)	32.1%	9
Other (please specify)	17.9%	5
1. N/A	Tue, Nov 29, 2011 9:16 A.M.	
2. STICKY PAPER ROCKS!	Mon, Nov 14, 2011 1:16 P.M.	
3. We check them back in manually; many are the result of OCLC interlibrary loans, which of course, we update on OCLC	Mon, Nov 14, 2011 11:20 A.M.	
4. Have to log in as separate location for each school library receiving back materials	Mon, Nov 14, 2011 10:28 A.M.	
5. We also keep a paper trail	Mon, Nov 14, 2011 9:28 A.M.	

### 8. Are holds (items being delivered to fill a hold) and returns (items being returned for reshelving) mixed together? Answered question: 27 Skipped question: 1

	Response Percent	Response Count
Yes	74.1%	20
No	25.9%	7

## APPENDIX E: IHLS SURVEY RESULTS

9. If there is any packaging for items received? If yes, describe your process for unpackaging. Answered question: 21 Skipped question: 7	
1. No	Wed, Nov 16, 2011 4:47 P.M.
2. Some First Search items are delivered with packaging that needs attending such as items from USPS, FED-X, etc.	Wed, Nov 16, 2011 2:48 P.M.
3. Items are received in plastic tubs, canvas bags or envelope type bags.	Tue, Nov 15, 2011 2:41 P.M.
4. Remove from package by hand	Mon, Nov 14, 2011 3:00 P.M.
5. Many libraries send DVDs and CDs wrapped in bubble wrap or something which is time consuming and messy as you have to hang on to the bubble wrap to send the item back.	Mon, Nov 14, 2011 2:34 P.M.
6. Just rubber bands. We remove rubber bands & place them in a container for re-use.	Mon, Nov 14, 2011 1:45 P.M.
7. Yes, Lakeland and a few other places send DVDs and Music CDs in padded envelopes and we must take the item out of the envelope to scan the code, but they want the item returned in the envelope as well. We send the envelope with the patrons, but they do not always come back.	Mon, Nov 14, 2011 1:16 P.M.
8. Sometimes; we just open them and check them in. — Usually only one to three items at a time.	Mon, Nov 14, 2011 11:20 A.M.
9. Sometimes there is a rubber band around the items. I take the rubber band off.	Mon, Nov 14, 2011 10:32 A.M.
10. Items for each of the seven schools are rubber banded together with school name	Mon, Nov 14, 2011 10:28 A.M.
11. No	Mon, Nov 14, 2011 10:02 A.M.
12. We send DVD and CDs in bubble package to keep case breakage to a minimum. We secure all bags with plastic ties also.	Mon, Nov 14, 2011 9:26 A.M.
13. Just remove the materials the item came in and scan item in. Then we repackage the item so the patron knows extra care is needed for this inter-lib loan item.	Mon, Nov 14, 2011 9:04 A.M.
14. We usually try to match however the materials are packed when we receive them, i.e., if they have a special box or envelope.	Sat, Nov 12, 2011 12:46 P.M.
15. Packaged items are unpackaged after all items in tub have been checked in.	Fri, Nov 11, 2011 3:06 P.M.
16. Some libraries package their dvd's in a padded envelope and that has to be removed.	Fri, Nov 11, 2011 12:28 P.M.
17. Remove materials from individual bags as applicable, including media shipped in padded bags	Fri, Nov 11, 2011 12:28 P.M.
18. Some items come with a rubber band around them to protect the item from adhesive tape, we simply remove the rubber band. Other items have routing slips taped to them with removable tape and we simply remove the routing slip and tape.	Fri, Nov 11, 2011 10:20 A.M.
19. There are always rubber bands and routing slips to remove on items within our hub. Items outside of the hub may or may not have a variety of different packaging, including rubber bands, bubble wrap, boxes, and bags.	Fri, Nov 11, 2011 9:45 A.M.
20. Purple IHLS bags are most often secured closed with a cable tie, sometimes not, this is cut and the bag is opened. Sometimes I receive videos/DVDs back in bubble wrap envelopes or boxes, those are opened. I'm a one person library so I do all the processing.	Fri, Nov 11, 2011 8:58 A.M.
21. Sometimes the community college sends their AV in padded envelopes, in which case we have to try to tag the items to return in the envelope (we aren't always successful)	Fri, Nov 11, 2011 7:57 A.M.

## APPENDIX E: IHLS SURVEY RESULTS

10. What days of the week do you receive your deliveries or do you have to call? If you call, under what conditions? Answered question: 28 Skipped question: 0	
1. We receive deliveries on Tuesdays and Thursdays.	Tue, Nov 29, 2011 9:16 A.M.
2. We receive deliveries Monday through Friday (5 days a week)	Wed, Nov 16, 2011 4:47 P.M.
3. Monday – Friday	Wed, Nov 16, 2011 2:48 P.M.
4. Mon – Fri	Tue, Nov 15, 2011 2:41 P.M.
5. TUE and THU	Tue, Nov 15, 2011 10:34 A.M.
6. M – F	Mon, Nov 14, 2011 3:00 P.M.
7. We receive delivery 4 days a week: Monday, Tuesday, Wednesday, Friday.	Mon, Nov 14, 2011 2:34 P.M.
8. Mon, Wed, Fri	Mon, Nov 14, 2011 1:45 P.M.
9. Monday through Friday	Mon, Nov 14, 2011 1:16 P.M.
10. Mon, Tues, Thurs, and Fri. We are also a community stop so we collect and disseminate the school materials as well. These are done on the same days that we get delivery, however depending on the time that bags come in , sometimes we do not get materials to the school on Mon.	Mon, Nov 14, 2011 1:16 P.M.
11. Monday–Friday	Mon, Nov 14, 2011 11:25 A.M.
12. Tuesdays	Mon, Nov 14, 2011 11:20 A.M.
13. I am generally receiving deliveries on Weds and Fridays.	Mon, Nov 14, 2011 10:32 A.M.
14. TUE, THUR	Mon, Nov 14, 2011 10:28 A.M.
15. Tues., Wed. Fri.	Mon, Nov 14, 2011 10:02 A.M.
16. Monday, Wednesday, Friday	Mon, Nov 14, 2011 9:59 A.M.
17. Monday through Friday. I believe they are delivering 5 days when there are materials — otherwise just 4 days. We are a school and our materials are delivered to the local public library.	Mon, Nov 14, 2011 9:28 A.M.
18. ILDS delivers daily	Mon, Nov 14, 2011 9:26 A.M.
19. Mon & Thurs	Mon, Nov 14, 2011 9:04 A.M.
20. Monday, Tuesday, Thursday, Friday	Sat, Nov 12, 2011 12:46 P.M.
21. Monday, Wednesday, Friday	Fri, Nov 11, 2011 3:06 P.M.
22. We receive delivery five days a week.	Fri, Nov 11, 2011 12:28 P.M.
23. Every day	Fri, Nov 11, 2011 12:28 P.M.
24. Monday – Friday	Fri, Nov 11, 2011 10:20 A.M.
25. M – F	Fri, Nov 11, 2011 9:45 A.M.
26. ILDS deliveries to me 5 days a week, when I was with LTLS delivery I received pickups 2 days a week.	Fri, Nov 11, 2011 8:58 A.M.
27. Mon. Tues, Thurs, Fri.	Fri, Nov 11, 2011 7:57 A.M.
28. We currently receive delivery four days a week.	Fri, Nov 11, 2011 7:21 A.M.

## APPENDIX E: IHLS SURVEY RESULTS

### 11. What time does delivery come? How big is the delivery time window? Do you have staff around at the time of delivery (e.g., to ensure you can get everything checked in and on the hold shelf quickly)? Answered question: 28 Skipped question: 0

1. We receive delivery between 9 A.M. and 10:30 A.M. I am in the library at the time of the deliveries.	Tue, Nov 29, 2011 9:16 A.M.
2. The delivery comes around 9 A.M. we are fully staffed at that time.	Wed, Nov 16, 2011 4:47 P.M.
3. Usually 9:45 — 10:45 in the A.M. — yes there is staff to take care of processing the materials	Wed, Nov 16, 2011 2:48 P.M.
4. Between 8.00 — 8.30 A.M. Staff member is always here.	Tue, Nov 15, 2011 2:41 P.M.
5. Delivery comes from 11 — 4. If I am here I check in the items, otherwise the materials will be taken care of later.	Tue, Nov 15, 2011 10:34 A.M.
6. Twice a day. 9:30 a.m. and then between 10:30 and 11.	Mon, Nov 14, 2011 3:00 P.M.
7. Depending on the day and the route, the materials arrive anywhere from 11 A.M.—3 P.M.	Mon, Nov 14, 2011 2:34 P.M.
8. Between 9:15 and 10:15 a.m.	Mon, Nov 14, 2011 1:45 P.M.
9. 11:00 to 11:30, we have requested 8:30 to 9:00 due to our volume	Mon, Nov 14, 2011 1:16 P.M.
10. Usually delivery comes between 10 and 10:30. When bob delivers, after a holiday, etc it is usually in by 1 P.M. We have a staff member in 11 — 3 whose purpose is to get bags done and pull the afternoon list.	Mon, Nov 14, 2011 1:16 P.M.
11. Around 11:00 — 12:00...sometimes a little earlier. I schedule a person to do the delivery so it can be done in the workroom and we don't have books and chaos all over the circ desk during the afternoon.	Mon, Nov 14, 2011 11:25 A.M.
12. Around 11 A.M.; quantity is not a problem for us. Items are dropped off at the entrance, with the Security Guard.	Mon, Nov 14, 2011 11:20 A.M.
13. Delivery comes somewhere between 10:00 A.M. and 11:30 A.M., making the window an hour and a half long. I am around and process materials as soon as possible.	Mon, Nov 14, 2011 10:32 A.M.
14. WE THINK AROUND 11 A.M. — COMES TO SCHOOL OFFICE SO WE DON'T KNOW EXACT TIME	Mon, Nov 14, 2011 10:28 A.M.
15. 10:15 — 11:00 A.M. staff is available	Mon, Nov 14, 2011 10:02 A.M.
16. No later than 9:30 each delivery day	Mon, Nov 14, 2011 9:59 A.M.
17. At lunchtime as our driver's ed teacher picks up for us. It was much easier when we had delivery at the schools.	Mon, Nov 14, 2011 9:28 A.M.
18. Delivery is received around 2 P.M. We allow the window 12 to 4 daily.	Mon, Nov 14, 2011 9:26 A.M.
19. Between 11:00 & Noon Sometimes no staff in when delivery is dropped off but it is the first thing the circ area does when we open.	Mon, Nov 14, 2011 9:04 A.M.
20. Variety of morning and afternoon.	Sat, Nov 12, 2011 12:46 P.M.
21. Approximately 9:30 — 10:00. 30 — 40 minutes Occasionally. Items are checked in after doing overdues, etc.	Fri, Nov 11, 2011 3:06 P.M.
22. Delivery is in the morning. The delivery is pretty consistent varying no more than a half hour usually. Yes we have staff when delivery arrives.	Fri, Nov 11, 2011 12:28 P.M.
23. Between 8:30 and 9:30 A.M.	Fri, Nov 11, 2011 12:28 P.M.
24. Our delivery arrives between 9 and 10 each morning. We do have staff in the library when delivery arrives.	Fri, Nov 11, 2011 10:20 A.M.
25. Delivery arrives between 8:30 and 9:30. We do have staff available, but not necessarily to complete the pull list to transit out. The staff that checks items in does not arrive until 10:00.	Fri, Nov 11, 2011 9:45 A.M.
26. Normally the delivery driver arrives between 9 A.M. and 10 A.M. Staff is not around at the time of delivery since we are a very small library.	Fri, Nov 11, 2011 8:58 A.M.
27. Around 1 P.M.	Fri, Nov 11, 2011 7:57 A.M.
28. We are one of the first to receive delivery. It usually comes by 8:30 A.M. We do have staff start immediately on the items. Our skip day is Thursday...on Friday it is not unusual for us to have 9 bags. I would say we average 4 to 5 bags a day.	Fri, Nov 11, 2011 7:21 A.M.

## APPENDIX E: IHLS SURVEY RESULTS

12. Do you always get the day's delivery back on the shelf that same day or are you backlogged? If backlogged, how many days are you backlogged (e.g., we still have items that need to be returned to the shelves that were delivered 2 days ago)? Answered question: 27 Skipped question: 1	
1. 50% – same day 50% – next day	Wed, Nov 16, 2011 4:47 P.M.
2. Yes we always do	Wed, Nov 16, 2011 2:48 P.M.
3. Almost always the same day.	Tue, Nov 15, 2011 2:41 P.M.
4. It is at least one day sometimes two days	Tue, Nov 15, 2011 10:34 A.M.
5. All requested items are put on the hold shelves the same day but returned items belonging to LL may be shelved within a week.	Mon, Nov 14, 2011 3:00 P.M.
6. Delivery items are always checked in and cleared the same day as arrival.	Mon, Nov 14, 2011 2:34 P.M.
7. We always get the delivery shelved the same day.	Mon, Nov 14, 2011 1:45 P.M.
8. Same day	Mon, Nov 14, 2011 1:16 P.M.
9. We aim for same day service. The most that may happen is that we will get items checked in and ready for patrons, but we may not get hold calls done if the volunteers do not show up for the day, or if delivery is extremely late.	Mon, Nov 14, 2011 1:16 P.M.
10. Yes usually, except Fridays might not get put on the shelf until Saturday morning.	Mon, Nov 14, 2011 11:25 A.M.
11. We are never backlogged.	Mon, Nov 14, 2011 11:20 A.M.
12. I am usually able to get the items back on the shelf that day. If not, they are certainly taken care of the next day.	Mon, Nov 14, 2011 10:32 A.M.
13. ALL ITEMS FOR ALL SEVEN SCHOOLS COME TO ONE LOCATION SO EVEN THOUGH THEY GET CHECKED IN THE SAME DAY OF RECEIPT — THEY MAY NOT GET BACK ON THE SHELF OF OWNING LIBRARY FOR 2–3 DAYS	Mon, Nov 14, 2011 10:28 A.M.
14. Shelved the same day	Mon, Nov 14, 2011 10:02 A.M.
15. Back on the shelf usually within a couple hours.	Mon, Nov 14, 2011 9:59 A.M.
16. We usually get out on the day that they are turned in.	Mon, Nov 14, 2011 9:28 A.M.
17. Returned to shelf within hours of delivery.	Mon, Nov 14, 2011 9:26 A.M.
18. Same day	Mon, Nov 14, 2011 9:04 A.M.
19. Usually same day.	Sat, Nov 12, 2011 12:46 P.M.
20. Items are reshelved the day of delivery, unless extremely busy.	Fri, Nov 11, 2011 3:06 P.M.
21. Yes we get the delivery on the shelf the same day (most likely because we have 5 day delivery).	Fri, Nov 11, 2011 12:28 P.M.
22. Same Day	Fri, Nov 11, 2011 12:28 P.M.
23. We get delivery items back on the shelf the same day.	Fri, Nov 11, 2011 10:20 A.M.
24. We have no backlog.	Fri, Nov 11, 2011 9:45 A.M.
25. No backlog.	Fri, Nov 11, 2011 8:58 A.M.
26. Always	Fri, Nov 11, 2011 7:57 A.M.
27. We make it a priority to have all items completed by the end of the day. We don't get backlogged...sometimes it takes several of us to get it done. Our priority is our patrons and getting the materials available for them.	Fri, Nov 11, 2011 7:21 A.M.

## APPENDIX E: IHLS SURVEY RESULTS

### 13. Does the courier always pick up everything you have ready or can they sometimes not fit everything in their vehicle? Answered question: 28 Skipped question: 0

	Response Percent	Response Count
Always picks up everything we have ready	100.0%	28
Sometimes delivery can't fit everything we have ready in their vehicle	0.0%	0

### 14. Are you amenable to the courier making the delivery while the library is closed? Answered question: 28 Skipped question: 0

	Response Percent	Response Count
Yes	71.4%	20
No	28.6%	8

### 15. How would you rate your current delivery service? Answered question: 28 Skipped question: 0

	Response Percent	Response Count
Exceeds my expectation	35.7%	10
Meets my expectation	57.1%	16
Room for improvement	7.1%	2

### 16. Please provide any comments you have regarding your current delivery service. Answered question: 23 Skipped question: 5

1. #14 — to have delivery while the library is closed would require a very different delivery arrangement because of our alarm system and where it is located in our building. Not insurmountable, but definitely very different from what happens now.	Wed, Nov 16, 2011 4:47 P.M.
2. We are pleased with the 5 day delivery and the drivers are always very pleasant --- they are diligent with their delivery	Wed, Nov 16, 2011 2:48 P.M.
3. Service is good.	Tue, Nov 15, 2011 2:41 P.M.
4. I have a concern that 1/4 rubber bands were requested, but I don't get any back. I also want to stick with delivery in my building. I will not go to another agency to pick up my materials.	Tue, Nov 15, 2011 10:34 A.M.
5. This is in response to question 14. I would be amenable to the current drivers employed by the system making a delivery while the library is closed as I know them well and trust them and I know the Shawnee system did background checks on the drivers before they were hired. But if delivery is contracted out I would be opposed to after hours delivery unless the driver has had a thorough background check and good work history. I can't afford to have items disappearing especially computer equipment.	Mon, Nov 14, 2011 2:34 P.M.
6. The drivers are cheerful & courteous. We like the current sched. & hope we do not have to decrease our number of delivery days.	Mon, Nov 14, 2011 1:45 P.M.
7. The important factor is that we listen to each other and work together to make this system work. We promise the public a lot and they insist and expect only the best now so we can not back pedal and give them less.	Mon, Nov 14, 2011 1:16 P.M.
8. Delivery is currently okay, but sometimes the drivers are very vocal in their displeasure about how things are done, even when the staff have done exactly what is required. I would hate to lose another day because as it is, our Thursdays and Fridays are huge and sometimes it takes 2 people to get everything in, let alone get it all shelved.	Mon, Nov 14, 2011 1:16 P.M.
9. Service from U of I Champaign is always horrible. Items get lost or take 2 weeks to arrive here.	Mon, Nov 14, 2011 11:20 A.M.
10. Our delivery just changed, and since the change things have been good!	Mon, Nov 14, 2011 10:32 A.M.
11. EVEN THOUGH THERE HAVE BEEN A FEW PROBLEMS — ALL IN ALL — I AM SATISFIED WITH THE SERVICE BECAUSE: A) I KNOW WHAT A MONUMENTAL UNDERTAKING IT IS AND B) I KNOW EVERYONE WORKS REALLY HARD AND IS DOING THEIR BEST.	Mon, Nov 14, 2011 10:28 A.M.
12. We love our driver, Larry Papa. He is courteous, prompt, and we look forward to seeing him during the week.	Mon, Nov 14, 2011 10:02 A.M.
13. Works well for us.	Mon, Oct 31, 2011 9:33 AM

## APPENDIX E: IHLS SURVEY RESULTS

16. Please provide any comments you have regarding your current delivery service. Answered question: 23 Skipped question: 5	
14. It was better when the state was current on payments. When the new system was in its early stages of development, we lost direct daily delivery. Since we are now part of a huge system, we do not have direct deliveries or any of the other services our system was so good in providing. Schools have really been discriminated against. Public libraries still get a per capita workshop and schools do not even receive info from the system on the changes. Just an example...I believe when membership standards are completed, many schools will lose everything.	Mon, Nov 14, 2011 9:28 A.M.
15. Wish we could have three day delivery like we used to. There are many Monday holidays which leaves our patrons with only one delivery that week. They are spoiled and liked getting the three deliveries they used to get. Hopefully things will turn around and they can receive the services they were accustomed to.	Mon, Nov 14, 2011 9:04 A.M.
16. We've had an excellent working relationship with the former SHAWNEE system and the drivers who deliver the materials and are willing to do whatever needed to continue the service for our patrons. It really is appreciated by library patrons, staff and management.	Sat, Nov 12, 2011 12:46 P.M.
17. Delivery drivers are usually friendly. There's been times when there has not been enough tubs for the books we have to be picked up. Drivers don't always want to wait the extra couple of minutes to put those items in the tubs. This makes patrons receive their materials at least two days longer than it should be.	Fri, Nov 11, 2011 3:06 P.M.
18. The delivery staff is excellent. They are courteous, friendly, caring and helpful.	Fri, Nov 11, 2011 12:28 P.M.
19. I am very pleased with our delivery service. Items are received in good condition, in a timely manner. The drivers are courteous and friendly. In some instances the courier drivers are the primary contact the local library has with the library system, in part because of the frequency they are in the local library.	Fri, Nov 11, 2011 10:20 A.M.
20. It wastes a lot of staff time to have to touch each item for three steps between checking it in and placing it in the bin (tape the slip to the item, circle in highlighter the destination library, and then rubber band the transit slip to the item). I'd like to see this reduced down to one step.	Fri, Nov 11, 2011 9:45 A.M.
21. I would only return to LTLS or IHLS delivery if I received delivery 5 days a week. I am only 1 or 2 miles away from another library that receives daily pickups, it doesn't seem like LTLS was saving that much gas by only coming to me 2 days a week. I am a member of CARLI and can receive their delivery 5 days a week so I use them. However more of my items go to IHLS libraries since I am in their catalog. It probably makes more sense for me to receive IHLS delivery too. But unless the schedule is changed I will stay with ILDS. Also the bags LTLS uses, canvas bags with open tops, worked well. I almost never had a damaged item come in from delivery. However with the purple bags ILDS uses I have had many crushed DVD/Video cases and have had to stop circulating those items. When I do circulate them now they are placed in cardboard boxes not the purple bag. I much prefer the canvas bags. I would be happy to discuss further with you if you wish. Miranda Shake Lakeview College of Nursing	Fri, Nov 11, 2011 8:58 A.M.
22. Truthfully, we could function very well with delivery only 3 days per week.	Fri, Nov 11, 2011 7:57 A.M.
23. Our drivers are great! I have said for years that without them, we can't do our job. Delivery should be a priority. I am glad to see you are doing this survey. If there is anything else we can do to help, please let us know. Janet Cler Tolono Public Library	Fri, Nov 11, 2011 7:21 A.M.

## APPENDIX F: HOW RAILS COUNTS DELIVERY

RAILS Location	Items Delivered	What Number Represents	Method for Calculating	Last Calculation	Frequency of Calculation
Burr Ridge	8,969,116	Items delivered to and items picked up from libraries.	Every month, perform week long container count (3 containers). Data entered into spreadsheet that uses assigned quantities for 3 containers to calculate total number of items processed. Current annualized averages based on weekly activity totals from July through Nov. Numbers used to arrive at an "average week" which is multiplied by 52.	November 2011	Monthly
Coal Valley	2,332,337	Items delivered to and picked up from libraries	Count bins used — a full bin will hold 40 items. If there isn't much in a bin, will actually count items.	Count every day	Daily
East Peoria	2,095,860	Items delivered to and picked up from libraries	Hand count for one day then average it out over the year. (In Oct., had one day count of 8061, multiplied by 5, then by 52.)	179	One day per year
Geneva	1,922,678	Items delivered to libraries only.	Take an average number of items per bag and use that number (41) for a full bag. Half a bag is 20 items, etc. Drivers tend to figure count more often than not so numbers are fairly accurate. Count for an entire week, take that number and average it out for the month.	88	One week out of every month, every year
Rockford	1,378,617	Items delivered to and picked up from libraries	Count bins used — a full bin will hold 40 items. If there isn't much in a bin, will actually count items.	Count every day	Daily
Shorewood	3,874,947	Items delivered to and picked up from libraries	Count bins used — a full bin will hold 40 items. If there isn't much in a bin, will actually count items.	Count every day	Daily
Wheeling	3,210,000	Items delivered to and picked up from libraries	Libraries fill out form each day of two-week survey period, providing outgoing counts only. Since everything going out eventually comes back, items delivered back from Wheeling were calculated using these numbers and adding/subtracting ILDS material. Daily counts during survey period were accumulated and projected out to an annual figure.	October 2010	Only done when required by ISL — twice per year for two week period

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