

# Mineola Union Free School District

## Highlights

The Mineola Union Free School District's investment in Lexmark products and solutions is projected to generate a 301% return on investment (ROI) in the first four years. Additionally, Mineola UFSD will break even on the investment within one year and achieve net benefits of \$1.1 million in four years.

An independent study conducted by Mainstay found that Mineola will realize a range of financial and operational benefits as a direct result of investing in Lexmark multifunction products (MFPs) and solutions. According to the study, Mineola UFSD's investment has significantly reduced output-related costs for consumables, optimized document workflows, helped Mineola offset expenditures in its 2012-13 budget and reduced frustration and lost time among administrators and teachers.

### Financial benefits (over four years)

- ▶ \$726K in printer and scanner CAPEX avoidance
- ▶ \$348K in annual savings on toner and paper costs
  - ▶ \$204K saved on toner expenditures
  - ▶ \$144K saved on paper purchases

### Operational benefits

- ▶ 66% reduction in number of printers and/or copier brands and service contracts
- ▶ 46% reduction in number of pages printed
- ▶ Relieved teachers of frustrating time sinks related to printing queues and logistics, giving them more time for classroom activities that focus on student achievement
- ▶ Lowered the district's carbon footprint

*"We actively seek to build systems that maximize resources, make work easier and ultimately deliver services that are the most cost effective, and Lexmark is a partner that supports these initiatives."*

**Michael Nagler, Ed.D.**  
Superintendent of Schools  
Mineola Schools



## About Mineola Union Free School District

**Background:** The Mineola Union Free School District serves pre-kindergarten through 12th grade in specified sections of Mineola, Albertson, Williston Park, Garden City Park and Roslyn Heights, N.Y. There are four elementary schools, one middle school and one high school. The district employs 280 teachers who serve about 2,700 students. Mineola aims to maintain high academic expectations and create an environment that promotes lifelong learning and good citizenship.

**Annual revenue:** \$83 million (2012-2013)

**Headquarters:** Mineola, N.Y.

**Number of schools:** Six

**Number of students:** 2,700 Pre-K through 12

**Executive summary**

“Successful implementation of technology begins with a vision,” says Michael Nagler, superintendent of Mineola Union Free School District (UFSD) on Long Island. But that vision isn’t just about state-of-the-art computer labs and programs like issuing tablets to every middle school student in the district. It also applies to Mineola’s workday, back-office technologies—the mass of printers and copiers and scanners that the district relies on for materials distributed to students in the classroom as well as for intraschool and district business. As Nagler put it: “The vision cannot be specific to a device or software—you need to leverage all available technologies.”

By early 2010, it had become increasingly apparent to Mineola that the district’s legacy copy center and printer fleet was being overwhelmed by inefficiencies and breakdowns. The system had been built piecemeal over the years, and the result was a hodgepodge of three different brands of printers assigned to various classrooms, some standalone inkjet printers in high-use areas, and a copy center with a limited number of devices. The system had no Internet capabilities. While the system was aging, demand was increasing. By 2010, the district was pumping out more than one million documents each month—some 400 sheets per student—at a cost of \$270,000 per year. Beyond the outlays for paper, toner, cartridges and other consumables, money was being lost on having to support separate maintenance and repair contracts with all the different printer and copier companies.

Apart from the financial waste, the old system was a maintenance headache and a time sink for teachers, who often had to wait days for their classroom printers to be repaired. More time was lost shifting between printers and copiers, a scenario that was particularly frustrating during test periods when queues backed up and devices were strained. Even completed jobs could be problematic. “I can’t tell you how many times items have accidentally been picked up by another teacher because they were sitting in the printer,” said Margarita Marvel, a teacher at Mineola UFSD. “This was not only inefficient use of our time, it was wasteful—additional copies would always have to be made.”

In 2010, Mineola UFSD began investing in a districtwide network of high-efficiency, multifunction products (MFPs) and other innovative solutions from Lexmark. Lexmark’s approach called for a complete overhaul of the district’s document-generation process, deploying devices that combine copying, scanning and printing in one unit. The new devices have advanced features, a consistent platform to simplify repairs and maintenance, and a quota system to block unnecessary or excessive printing.

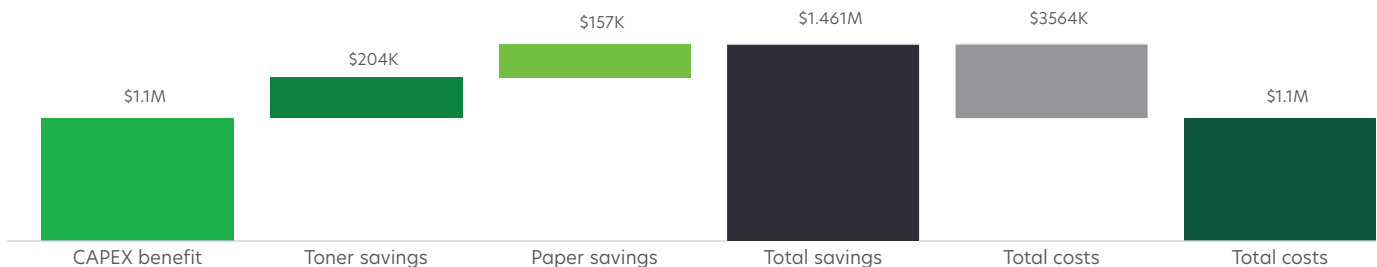
The new network consists of 61 Lexmark devices that can print, scan, copy and fax from a single unit. Some of the models can collate and finish more complex document packages required throughout the district.

All of the devices are connected to the Mineola network and are equipped with Lexmark Print Release, which gives teachers and administrators the freedom to print to any printer or MFP on the network—whether the device is down the hall or across town. Mineola also adopted Lexmark’s Copy Center solution, which allows users to send large or complex jobs electronically to the district’s central copy center, giving teachers more time to focus on students instead of administrative tasks.

As a direct result of the investment, Mineola is saving tens of thousands of CAPEX dollars annually, creating savings that are helping the district optimize its capital expenditures and meet its budgetary constraints. Moreover, by moving to a network of Lexmark MFPs, the district has opened up floor space and reduced its carbon footprint. Finally, the switch to the Lexmark solution has helped root out inefficiencies and delays for teachers and administrators, freeing them to engage in the more important and satisfying work of being in the classroom educating students.

**Figure 1**

**Total cast and benefits by category**  
(4-year view)



### Challenge

Mineola UFSD is a small, well-regarded district encompassing parts of five communities of Nassau County on New York's Long Island. Families often contain generations of students who attended one of Mineola UFSD's six pre-K through 12 schools. The district has 2,700 students and a 98% graduation rate. The district is also a major employer for this village of 18,000 residents, employing 600 workers, including 280 teachers.

Each year, the district must weigh the competing needs of its six schools—divvying up funds between new athletic equipment for one school and new music room furniture for another, as well as procuring new buses and factoring in rising salaries and routine building maintenance. In this fiscal environment, every new technology investment needs to offer clear benefits, such as the district's program to distribute tablets to all of its middle school students.

But making do and getting by on the district's limited and outmoded printer and copiers was no longer working. Mineola UFSD was awash in paper: One million pieces copied or printed each month, at a cost that was rising relentlessly due to maintenance needs, a lack of network connectivity to share output resources, an inability to set quotas on usage; and inefficient use of toner, cartridges, paper and other consumables.

The system also ate into teacher productivity, which in turn, led to frustration and complaints. At peak test times, teachers would have to contend with long queues for printers and copiers—sometimes finding that their copies had been picked up accidentally by another teacher or that the job didn't go through. "There were so many times when I sent copies to a machine that was broken or out of toner, so I'd have to go back to my computer to resend it to another printer," said teacher Mary LoCascio. "Of course, I'd have no way of knowing if that printer was also broken or out of toner."

### Approach

With one million copies being produced each month and no centralized, organized way to oversee or limit processes in any way, Mineola wanted a complete overhaul of the way printing and copying were handled in the district. It also wanted relief from needless expenditures on toner, cartridges and paper, and a less cumbersome and expensive way to manage maintenance and service of its assorted printers and copiers.

*"While some of us initially feared a Big Brother-style oversight of everything we copied, the Lexmark system has proven to be a model of efficiency. Frankly, with such quick turnaround, planning and implementation of lessons requiring multiple copies has been made even easier with our new centralized system. Copies come back carefully collated, correctly counted and are now available in even more colors, bindings and sizes than in the past."*

**Michael Kandel**

Teacher, Mineola Schools

Mineola UFSD realized its system was too big, too scattered and too old to help it manage the load or lower costs. Over the decades, Mineola had pieced together a mismatched collection of classroom and site-specific printers backed up by a large copy center at the high school. The system was neither web-enabled nor able to enforce quotas that could prevent printing of unnecessary or unsanctioned jobs. Although rare, there were occasions when users would print material unrelated to school and the district wanted a way to prevent this behavior. Before it began researching the market, the district outlined the following objectives for a districtwide printing system:

- ▶ Optimize capital expenditures
- ▶ Reduce device maintenance
- ▶ Decrease cost of consumables
- ▶ Pay only for actual use
- ▶ Eliminate pooled services to relieve congestion and queues
- ▶ Make copying and printing more efficient and less frustrating for teachers Set limits and quotas to help with conservation efforts
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*“The multifunction printer has significantly made our teaching lives easier. The use of the MFP has decreased the time teachers spend making copies, which in turn has given us more time to plan during our lunch and prep periods. It has truly been more efficient.”*

**Margarita Maravel**

Teacher, Mineola Schools

The district essentially decided to start over with its system, realizing it was not sensible to continue adding new and different pieces to an inefficient system. The district decided to build the infrastructure for a fully managed, networked solution with a host of new capabilities. It gave itself three years to fully fund, install and refine the system. In 2010, the district approached Lexmark with the concept of a web-enabled network with a counter and quota system, and Lexmark responded with a plan to right-size the system around smaller, but more widely distributed MFPs with quotas built in. Having completed the solution with a neighboring school district the previous year, Lexmark could easily leverage that foundation for the Mineola district.

### Solution

The solution Mineola settled on consists of a district-wide network of Lexmark X-Series, W850-Series, T-Series, E250-Series and C792 color printers and MFPs equipped with Lexmark Print Release. Lexmark Print Release gives teachers and administrators the option to print documents on any printer or MFP on the network—whether the device is down the hall or across town. Now a teacher can print a document from his or her desk, go to any device on the network, authenticate using their employee badge and then release the job to print. Print jobs stay in the server queue until the owner releases them, so any confidential content in those documents stays that way. And if the jobs aren't released within a few hours, they are automatically deleted, eliminating jobs that would have been abandoned anyway.

Mineola's networked-based solution provided a number of advantages over the district's previous environment. Teachers and administrators could now print to any device on the network, avoiding any “single point of failure.” If one device is out of paper or has a jam, the job can immediately be printed on a nearby device. The Lexmark Print Release solution also gave the district better accountability and control over output volumes, and eliminated abandoned print jobs. The district also deployed the Lexmark Copy Center solution, which allows users to send large or complex jobs electronically to Mineola's copy center. Hardcopy jobs can be submitted through the MFP, while electronic jobs can be sent through any Internet connected computer, a major convenience for teachers who want to submit jobs from home at night or on weekends.

The school-based Lexmark MFPs are smaller than the legacy devices, and they are more versatile: each device can print, copy, scan and fax. The MFPs in the district's new centralized copy center have the same functionality, plus the ability to hole punch, bind and handle specialty jobs like 11x17-inch copies.

From the teachers' perspective, the advanced functionality, coupled with print release, has been a big time-saver, eliminating a major source of frustration around assembling materials. “The copy center and print release feature has definitely made my life easier,” LoCascio said. “The copy center gets the copies back to me very quickly and I don't have to waste time waiting at a machine.”

“This product has made my teaching life easier for a number of reasons,” agreed teacher Jodi Helming. “I can send large copying jobs to the copy center and receive them back in a timely manner and the Print Release function allows me to locate a document, print it and then use any machine in the building to get the document. In addition, I can use the machine to scan to “My Documents” right to my PC, which is extremely helpful in saving a resource that I find and being able to easily retrieve it at a later date.”

She continued with this example: “Right now, I am preparing a variety of materials for a staff development workshop. Some documents need to be sent to the copy center, some are in My Documents, and others I'm copying from a print resource. Using this product has allowed me to accomplish all this with a minimum of hassle. The strength of this product is in its versatility and in its efficiency.”

The Lexmark MFPs can also track and manage jobs, which prevents unauthorized use. They can also apply quotas to spot overages or spikes. To do this, Lexmark created a Mineola-specific verification process that works with staff and teachers' existing IDs, whether those IDs are badges or email addresses. From a management perspective, this has been an easy way to control costs and reduce unnecessary jobs without burdening users with long waits for authorizations.

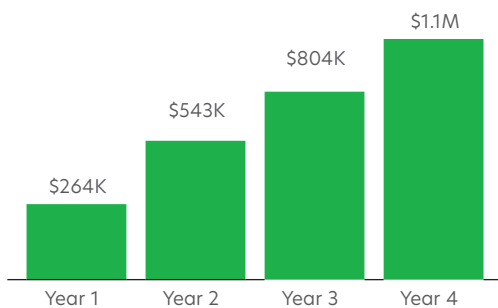
The Lexmark platform has generated a host of other benefits and cost savings. For example, the new consolidated, single-vendor approach has reduced the number of service contracts from three vendors to one, lowering maintenance costs and the complexity of managing multiple contracts and vendors.

**Results**

According to a study by Mainstay, Mineola UFSD's investment in Lexmark multifunction printers and solutions is expected to contribute net cost savings and operational benefits totaling an estimated \$1.1 million over four years. In those years, the department will earn a 301% return on its investment and achieve a positive net return in 12 months. Figure 2 shows the cumulative, four-year breakdown of benefits from the investment.

**Figure 2**

**Cumulative net benefits**



**Fewer brands, greater savings**

By replacing its mismatched collection of printers and copiers with a uniform system of Lexmark MFPs, the district has reduced the number of brands it is working with by 66% (see Figure 3). In addition, Mineola is on track to dramatically cut device maintenance and service costs, which averaged about \$270,000 per year. "The old devices were all leased under staggered, piecemeal agreements," said Nagler. "It was complicated and expensive."

Under a new maintenance agreement, Lexmark will replace or repair equipment within two days, compared to an unknown number of days with previous vendors. Furthermore, because the system has built-in redundancy spread over all the devices on the network, a project sent to an out-of-order device is simply routed to another device. This has substantially reduced teacher frustration over delays and breakdowns.

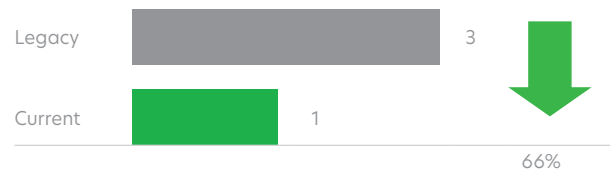
**Significant savings on consumables**

According to the Mainstay study, Mineola will save \$726K in printer and scanner avoidance costs and an additional \$348K in consumables cost avoidance (\$204K on toner and \$144K on paper). Part of the savings comes from having standardized equipment districtwide: all the printers and MFPs use the same kind of toner, eliminating the capital expense, stockpiling, and storage of consumables for multiple brands and models. Furthermore, Lexmark automatically tracks toner levels through its Web portal and replenishes supplies when needed, so there is no need to keep a running inventory or to store toner on site.

**Figure 3**

**Reduction in printer brands**

Number of output device brands



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**Mary LoCascio**

Teacher, Mineola Schools

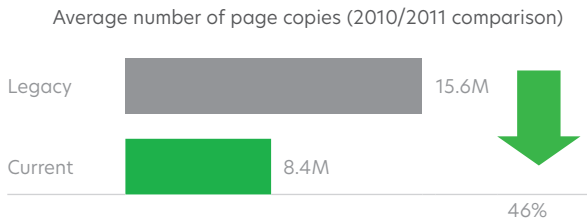
**Consumables spend per year**

Since installing the Lexmark solution, the district has seen its annual paper consumption drop by 46% from 15 million to eight million pages, as shown in Figure 4. And although the concept initially raised some suspicion, the new quota system has helped the district in its conservation efforts. "I find that we use less paper because of our awareness of having a quota," Maravel said. "And we are not going without," she added. "The quotas we were given certainly meet our copy needs."

The district will also see a 66% reduction in the number of brands of printers and copiers it must manage, simplifying everything from toner orders to managing service contracts.

**Energy savings windfall**

Because everything is consolidated, each Lexmark MFP obviates separate scanners, printers and copiers. Eliminating all those machines means the district can reduce storage space and trim energy consumption, savings in electricity costs and helping reduce its overall carbon footprint.

**Figure 4****Reduction in pages**

Lexmark's MFPs are also among the most energy efficient on the market and come with auto-shutdown and other technologies to reduce energy consumption.

"The multifunction printers have made things easier while supporting Mineola's efforts of going green," Maravel acknowledged. "Rather than making copies for students or teachers, we can simply scan and email the document we want to share."

**Teachers on board**

The solution has benefited teachers in ways they care about: by giving them back time lost to printing queues, walking from printers to copiers, and waiting for repair work to be done. Those time savings can be reinvested in the classroom—the ultimate goal of every district investment.

Among ways teachers can recoup time:

- ▶ Eliminates the need for teachers to be at a device to complete a complex print job
- ▶ Allows teachers to prepare jobs at their computers and send them to the copy center electronically, even from home
- ▶ Allows scanned documents to be emailed and faxes to be routed electronically and distributed by email
- ▶ Eliminates travel time back and forth to the classroom to reprint jobs sent to a device that isn't working

"Having the copy center as another way of copying in large quantities has saved a tremendous amount of time," Maravel said. "We simply scan what we need copied and send it to the copy center through the MFP. The copies are then sent to us within a day or two."

"While some of us initially feared a Big Brother-like oversight of everything we copied, the Lexmark system has proven to be a model of efficiency," said teacher Michael Kandel. "Frankly, with such quick turnaround, planning and implementation of lessons requiring multiple

copies has been made really easy with our new centralized system. Copies come back carefully collated, correctly counted, and are now available in even more colors, bindings, and sizes. Lexmark has turned this somewhat skeptical teacher into a believer."

**Looking ahead**

As the Mainstay study found, the Mineola Union Free School District will reap more than \$1.1 million in financial and operational benefits over four years as a direct result of its Lexmark investment. This represents an ROI of 301% in the first four years, with positive net benefits after one year. Figure 1 shows the breakdown of total costs and benefits by category.

But the district will also see returns that are difficult to quantify: greater teacher satisfaction and direct time savings for teachers and administrators. "The multifunction printer has significantly made our teaching lives easier," Maravel said. "The use of the MFP has decreased the time teachers spend making copies, which in turn has given us more time to plan during our lunch and prep periods. It has truly been more efficient."

Over the next few years, the district plans to implement and expand its use of Lexmark's Testing and Grading solution, leveraging the equipment and network already in place to further expand on data-driven instruction.

**About this ROI and business benefits assessment**

Research and analysis for this business impact study was conducted by Mainstay, an independent consulting firm and was based on interviews with officials at Mineola Union Free School District and Lexmark and searches of industry literature. ROI calculations use industry-standard assumptions regarding the time value of money.

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