

# Top AP KPIs to monitor

Discover the top nine key performance indicators (KPIs) Accounts Payable (AP) teams use to evaluate workflows and drive operational efficiency





# Why do KPIs matter?

**For any metrics, including KPIs, what really matters are the stories they tell.**

Long approval times—averaged across hundreds of invoices—translate into countless emails back and forth with approvers and vendors, hours of frustration on all sides, and a general atmosphere of friction for the AP team.

Exception rates, too, measure more than just errors. They speak to job tension, stress levels, and strained vendor relationships, not to mention a potential negative impact on the bottom line.

By establishing your baselines across nine KPIs and comparing them to industry benchmarks, you'll shed new light on the overall health of your AP systems.





# Table of contents

**These nine KPIs are commonly used by AP departments to measure productivity and efficiency:**

1. Electronic invoice processing (EIP)	4
2. Invoice approval time (IAT)	6
3. Expense report approval time (EAT)	7
4. Invoices paid digitally (IPD)	8
5. Invoice exception rate (IER)	9
6. Average cost per invoice (CPI)	10
7. Invoices processed per employee (IPE)	11
8. Early payment discounts captured (EPD)	12
9. Late payments rate and penalties (LPR)	13

On the following pages, we’ve collected research-based benchmarks for each KPI. See how your metrics stack up against industry averages and best-in-class peers.



# 1. Electronic invoice processing (EIP)

## Calculating EIP

EIP measures the percentage of your invoice workflow that's handled by digital automation. It sounds simple enough, but calculating it requires some deep thinking about your AP process. For example, an invoice might arrive by email as a PDF scan, and your team might enter it into a digital spreadsheet. Despite those digital formats, the data entry process is still manual. The data also has to be transferred to your accounting software and cross-checked. Those are manual steps too—entering the same information in different places. That takes time, and it opens up the chance of human error.

## An EIP example

To see the EIP calculation step by step, let's say you process 20 invoices manually and 30 digitally each month, but about half of your digital workflow requires manual work.

Your manual workflow includes those 20 manual invoices plus half the workflow of your 30 digital invoices. That's 20 plus 15, for a total of 35.

Divide 35 by 50 (your total number of invoices) to get 0.70, meaning 70% of your workflow is manual.

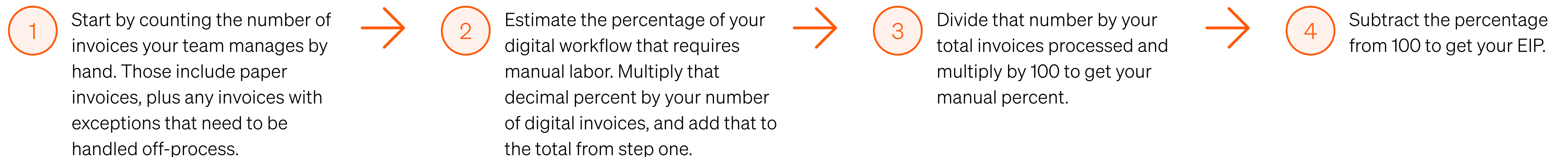
The other 30% of your workflow is digital. That's your EIP.

# 77%

It takes 77% less time to process an electronic invoice than to manually process a paper invoice.

Source: Ardent Partners' State of ePayables 2016:  
Eyes on the Prize research study

## How to calculate EIP





# 1. Electronic invoice processing (EIP)

## Why it matters

EIP represents the portion of your workflow that's streamlined and efficient, automating routine tasks and logging them in a digital, easily reviewable audit trail.

The higher that number is, the better.

An EIP of only 30%, for example, means the other 70% of your workflow is manual—labor-intensive, largely undocumented, and open to the chance of human error.

## Improve your EIP score

Remove manual bottlenecks from your AP workflow:

- **Enter billables data only once.**

Automate the flow of information throughout your system to minimize the chance of introducing errors down the line.

- **Funnel every invoice into one digital workflow.**

Off-process handling is inefficient and time-consuming. Digitize those paper invoices and create standards for manual exceptions.

- **Collect and store approvals electronically.**

Emailed approvals aren't great for longterm documentation. Instead, store approvals in a centralized, searchable location.

- **Integrate an electronic payment system.**

Entering data separately for payment introduces another chance of critical mistakes. Data should flow from invoice to payment seamlessly.

- **Sync billables with your accounting software.**

Keep your books error free and up to date with automatic integration between your AP platform and your accounting software.

- **Capture every step along the way.**

Capture each touchpoint of your AP workflow automatically in a digital audit trail for fast, easy bill pay transparency.



Small and midsize businesses often assume this kind of automation is beyond their reach, but BILL's turnkey AP automation solution does all this and more.

## 2. Invoice approval time (IAT)

### Calculating IAT

IAT measures the average time it takes to get each invoice approved for payment. Calculate it by adding up the time it takes to approve every invoice over a given time period and dividing by the number of invoices processed.

$$\text{Invoice approval time (IAT)} = \frac{\text{the sum of all time taken for each invoice approval}}{\text{number of invoices processed}}$$

### Why it matters

Gathering invoice approvals is one of the most time-consuming and inefficient parts of the AP process, often taking days if not weeks. Most email systems just aren't built for integrated task management. Employees have to track the approval process manually, without any automation for reminders or due-date warnings. And with employee turnover, approval emails can easily get lost in the shuffle.

Improve IAT by streamlining the approval process to avoid late payments and penalties, capture approval records automatically, and improve relationships with vendors and suppliers.

### Improve your IAT score

- **Choose the right approvers.**  
Make sure invoices are sent to managers with approval authority who are familiar with the products and services rendered
- **Tailor approval policies.**  
Think about which invoices need close examination and which ones might not. Reserve executive approvals for amounts over a given threshold.
- **Automate approval requests.**  
Instead of sending manual emails, use an automated platform to handle approval routing, reminders, and collection.
- **Make approvals easy and convenient.**  
Implement advanced AP automation that lets approvers review, flag, and approve invoices from any device, including their phone.



#### Top Performers:

**3.3**  
days per invoice

#### All Others:

**10.95**  
days per invoice

Source: Ardent Partners' Accounts Payable Metrics that Matter in 2022.



# 3. Expense report approval time (EAT)

## Calculating EAT

Similar to invoice approval time, expense report approval time measures the average time between receiving an employee expense report and payment approval.

Calculate it over a given time period, such as a business quarter, by noting the time it takes to approve every expense during that period, adding those times up, and dividing by the number of reports processed.

Alternatively, you can use a solution like Divvy, which eliminates the approval cycle time for expense reports. With Divvy, employees are given pre-set spending limits that can be adjusted to account for upcoming expenses. This drops your EAT to zero, increasing employee satisfaction and streamlining your expense report process.

Expense report approval time (EAT)

=

the sum of all time taken for each expense report approval

number of expense reports processed

## Why it matters

Employees depend on quick reimbursements to keep their operational cash flow on track month after month. When expenses are coming out of pocket, those reimbursements are even more important.

Fast approval times keep employees happy and give them better visibility into their expense budgets.

## Improve your EAT score

- Make it easy to submit reports.**  
Employees are more likely to submit timely reports if there's an easy, digital process in place that makes reporting quick and painless.
- Populate reports automatically.**  
Nothing's easier than a report that gets filled out for you. Divvy business cards, for example, come with software that automatically captures expenses.
- Create policies that simplify approvals.**  
Give managers a set monthly budget they know they can spend, and automate those approvals within reasonable limits.



### Top Performers:

0  
days per invoice

### Average Performers:

5  
days per invoice

Source: APQC.org, Cycle time in days to approve and schedule T&E reimbursements

# 4. Invoices paid digitally (IPD)

## Calculating IPD

IPD measures the percentage of your payments that are made digitally, as opposed to signing paper checks and dropping them in the mail. Digital payment methods include things like ACH, wire transfers, and electronic credit card payments.

Invoices paid digitally (IPD) = 
$$\frac{\text{invoices paid digitally}}{\text{total invoices paid}} \times 100$$

## Why it matters

Digital payments are faster than paper checks, generally less expensive, and not prone to check fraud or theft. They're also easier to track and provide a detailed audit trail.

Sending checks can be a time-consuming process—signing them, stuffing envelopes, and dropping them in the mail—not to mention waiting for them to clear.

A low IPD also implies room for improvement in supplier relationships. Vendors can run into cash-flow headaches as they wait for checks to arrive and for banks to release those funds.

## Improve your IPD score

- **Use a business payments platform.**  
On top of digital payments like ACH, virtual card, and international wire, BILL offers innovative ways to pay customers digitally even if they don't usually take digital payments.
- **Win vendors over to digital.**  
With automated communications and payment tracking, faster payments, and options for expedited funds, vendors won't want to go back to paper checks once they've seen the power of AP automation.



In 2004, organizations made

81%

of their payments to business customers via checks. Since then, that percentage has decreased by nearly half.

Source: AFP Electronic Payments Survey Report, 2019.



60%

of invoices paid digitally

Source: B2B Payments: 40% Are Made With Paper Checks, PYMNTS.com



# 5. Invoice exception rate (IER)

## Calculating IER

IER measures the percentage of errors found in your total pool of invoices, whether those errors are in the invoices themselves or introduced during AP data entry.

Invoice exception  
rate (IER)

=

invoices that need exception handling

total invoices processed

x 100

## Why it matters

A high invoice exception rate can alert you to problems in your AP process. The more manual your AP system is, the higher the chance of human error—especially when you’re managing a lot of invoices with a lean staff. As exceptions rack up, a team that’s already stretched thin now has to struggle with the additional time involved in handling those exceptions. The more the problem compounds, the more time your team ends up spending on mundane bill pay activities instead of leading new finance initiatives. In the worst-case scenario, payments are delayed, vendor relationships suffer, and the risk of accidental overpayment increases significantly.

## Improve your IER score

- **Leverage AI-enabled tech.**  
An automated system like BILL can use optical character recognition (OCR) to read invoices for you, enter the data into a digital system, and even check for duplicate invoice numbers.
- **Automate PO matching.**  
Use the same AI-enabled technology to match invoices to underlying POs—to process accurate invoices faster and flag discrepancies for review.



### Top Performers:

10.1%  
exception rate

### All Others:

25.5%  
exception rate

Source: Ardent Partners' Accounts Payable Metrics that Matter in 2022.



## 6. Average cost per invoice (CPI)

### Calculating IER

The average cost per invoice is just what it sounds like. Calculate it across a given time period by summing the total processing cost of all invoices paid during that time and dividing by the number of invoices processed.

$$\text{Average cost per invoice (CPI)} = \frac{\text{total processing costs of invoices paid}}{\text{number of invoices processed}}$$

The key is to make sure you're factoring in all relevant costs, including:

- **Time and labor:** hours spent by invoice processors and approvers
- **Supplies and maintenance:** paper, envelopes, stamps, check stock, printer ink, printer maintenance, etc.
- **Transaction fees:** ACH, wire transfer, and credit card fees
- **Dedicated space:** cost of the square footage dedicated to AP-related storage

### Why it matters

For accounting and finance teams, the average cost per invoice might be the most obvious metric of all, and yet it's rarely calculated. Most AP teams are too busy with daily tasks to analyze their own operations.

But that's the best reason to do it. Understanding your average cost per invoice can help you build a business case for AP automation.

### Improve your CPI score

- **Automate manual processes.**  
Identify inefficient manual efforts and automate them wherever you can.
- **Switch to digital payment.**  
Minimizing paper checks can cut costs significantly, especially when your AP system is integrated with a digital payment system.
- **Evaluate AP automation solutions.**  
An intelligent business payments platform like BILL can streamline your AP process from end to end.



### Under manual processes

**\$15**  
per invoice

### Under a completely automated AP processors:

**\$3**  
per invoice

Source: Accounts Payable Success in the Mid-Market, PayStream Advisors 2017.



## 7. Number of invoices per AP employee (IPE)

### Calculating IPE

IPE measures how many invoices your team is handling per person. Despite the name, it's not a measure of human efficiency. It's a measure of process efficiency.

$$\text{Number of invoices per AP employee (IPE)} = \frac{\text{invoices processed per month}}{\text{number of full-time-equivalent AP employees}}$$

### Why it matters

Manually typing in invoices, checking for duplicate invoice numbers, applying approval rules, and collecting approvals by email all take a huge amount of time and effort.

To improve your team's efficiency, don't double down on an inefficient process—that only raises your chance of mistakes. Instead, help your team work smarter with AP automation.

### Improve your IPE

- **Streamline processes.**  
Meet regularly to discuss roadblocks and places where AP systems could be improved.
- **Create a safe space for honest feedback.**  
Consciously build a culture that encourages constructive suggestions to streamline workflows.
- **Build a scalable system.**  
Expand your invoice processing volume easily and efficiently, without adding headcount, through bill pay automation.



**With low automation**

897

invoices per employee per month



**With high automation**

1617

invoices per employee per month

source: Measuring Your AP Performance: Efficiency Metrics, IOFM 2019.



# 8. Early payment discounts captured (EPD)

## Calculating IPE

Of the early payment discounts you have available, how many does your AP process actually capture? That’s what EPD measures. It can be calculated by the number of discounts offered or by the dollar amount those discounts represent, but the dollar amount is a better measure of the savings you might be missing.

Early payment discounts captured (EPD)

=

early payment discounts captured

early payment discounts available

x 100

## Why it matters

The higher this percentage is, the more your team is doing to decrease your outflows and improve your cash position. But it’s also an indication of how much control you have over your AP timing.

After all, you might not always want to make payments early. Sometimes, you might need to hold onto your cash a bit longer. Having better control over payment timing can help you weather the ups and downs of your business cycle without missing a beat.

When measured during cash-rich months, a high percent of early discounts captured can give you confidence in your ability to navigate tighter markets.

## Improve your EPD

- **Flag payment terms.**  
Your AP system should give you a way to prioritize invoices with early payment discounts and keep track of deadlines efficiently.
- **Create a payment schedule.**  
Keep track of which payments need to go out when. Prioritize the largest discounts and be sure to pay those bills early.
- **Automate your payment dates.**  
For better control over payment timing, an AP automation solution like BILL lets you set payment dates in advance and provides greater visibility into your cash flow.
- **Negotiate more early discounts.**  
Once you’re on top of your early payment discounts, improve your cash position even more by negotiating early discounts with other vendors. According to the Institute of Finance and Management, about 80% of suppliers are willing to offer discounts in exchange for early payment.



### Top Performers:

80%  
of early payment discounts captured

### Average:

<21%  
of early payment discount captured

Source: The 4 Most Important Benchmarks for Becoming a Best-in-Class Accounts Payable Organization, IOFM 2016.



# 9. Late payments rate (LPR)

## Calculating LPR

Your late payments rate measures the percent of payments that are made past the due date. These won't always incur penalties, but summing up any late fees paid by dollar amount is another related way to track the visibility and control of your AP system.

Late payments  
rate (LPR)

=

payments made past the due date

total payments made

x 100

## Why it matters

Late fees can impact your bottom line—sometimes in a small way, and sometimes not so small. But late payments can also signal bigger problems on the horizon.

If you pay too many bills late, key vendors could re-evaluate your risk factor, raising their rates or even canceling when your current contracts expire.

## Improve your LPR

- **Approach the problem with curiosity.**  
Talk to your AP staff. Ask questions. Where are the bottlenecks in the system? Don't stop at the first issue you find. Instead, examine the whole AP workflow. A few days here and a few days there can add up to big delays.
- **Address the system as a system.**  
It's far too easy to blame people when the real problem is an inefficient process, not an inefficient staff. Re-engineering your AP workflow can transform an AP department.
- **Redesign your workflow the easy way.**  
AP automation software like BILL is designed to streamline your AP workflow without the hassle. Fast and easy to implement, automation can be a minimal investment that yields huge results.

Top Performers:

>90%  
of invoices paid on time

Bottom Performers:

<75%  
of invoices paid on time

Source: Measuring Your AP Performance: Efficiency Metrics, IOFM 2019.







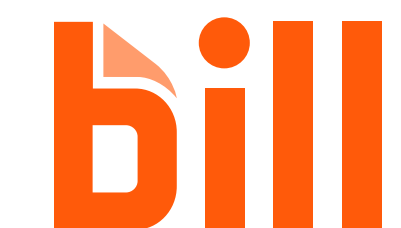
# Optimizing your AP starts with KPIs

For any business operation, KPIs are a great way to measure your performance, find places to improve, and track your progress. When it comes to AP, improvement isn't just about efficiency. It's about building a scalable process. Issues like long approval times and high exception rates that can seem manageable for a small operation tend to compound with business growth.

Automation streamlines your AP workflow and prepares it for growth—reducing the chance of errors, reducing stress, and speeding up AP operations tremendously. Optimizing your AP starts with KPIs We'd love to show you what BILL's AP automation can do for your team.

**We'd love to show you what BILL's AP automation can do for your team.**

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