

C A S E S T U D Y

# ESOP Wealth Calculator

How NodeCo Built a White-Label Wealth Projection Tool That Shows ESOP Employees What They'd Be Leaving Behind

May 2026

## EXECUTIVE SUMMARY

NodeCo designed and deployed a fully white-label ESOP employee wealth calculator — a browser-based projection tool that shows employees at employee-owned companies exactly what their ESOP stake is worth at retirement compared to the S&P 500 benchmark. The tool runs 1,000 Monte Carlo simulations using each company's actual historical stock return data, models monthly contributions, profit sharing, dividends, and salary growth, and delivers a personalized PDF report employees can keep.

The platform is delivered as a hosted URL at [esopwealthcalc.com/clientname](https://esopwealthcalc.com/clientname) — fully branded to each client's logo, colors, and company name — or as a self-contained HTML file for SharePoint and intranet deployment. Built on Node.js and deployed via Railway with a Netlify-hosted landing page, the system requires zero per-client engineering work after initial setup.

**1,000**

Monte Carlo simulations per projection

**< 24hrs**

Client onboarding to live URL

**2**

Deployment options per client

**\$0**

Per-employee usage cost

## THE CHALLENGE

### ESOP companies have a powerful retention story they can't tell

There are over 6,500 employee-owned companies in the United States with more than 14 million employee owners. Most of them have a genuine financial advantage over conventional employers — higher stock appreciation, profit sharing contributions, dividend income, and employer match structures that compound significantly over a 20-30 year career.

The problem is that none of that is visible to employees. A stock statement shows a price. It doesn't show compounding, profit sharing, dividends, or what twenty years of ownership actually builds. Employees leave ESOP companies without ever modeling their retirement number — and by the time they understand what they walked away from, it's too late.

#### Impact of the Visibility Gap

- Employees leave without understanding the wealth they're walking away from
- HR teams can't quantify the retention advantage in employee conversations
- Onboarding fails to communicate the long-term financial case for staying
- No comparison tool exists to show ESOP vs. S&P 500 side-by-side

#### Why Off-the-Shelf Tools Don't Fit

- Generic 401k calculators don't model ESOP-specific inputs like profit sharing and dividends
- No existing tool accepts a company's actual historical return data as simulation inputs
- Financial planning tools are employee-facing products, not employer-branded retention tools
- Building a custom calculator requires engineering resources most HR teams don't have

- Profit sharing, dividends, and match structures remain invisible to employees
- No white-label solution existed that could be deployed per-company without custom development

## THE SOLUTION

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### A white-label wealth projection platform built for ESOP companies

NodeCo needed a platform that could be configured for any ESOP company — their logo, colors, stock price, historical returns, profit sharing %, dividend rate, and match structure — and deployed as a live URL or intranet file within 24 hours of receiving client data. The system needed to require zero engineering work on the client side and produce results compelling enough to change how employees think about staying.

#### Monte Carlo Simulation Engine

Each projection runs 1,000 simulations by randomly sampling from the client's actual historical annual return data. Conservative (25th percentile), Moderate (median), and Historical (75th percentile) scenarios show the range of realistic outcomes — not a single optimistic line. Confidence bands on the growth chart visualize the spread across all 1,000 runs.

#### ESOP-Specific Financial Modeling

The calculator models inputs no generic tool supports: annual profit sharing as a percentage of salary added to company stock at year-end, annual dividends calculated as  $(\text{stock value} \div \text{stock price}) \times \text{dividend rate}$ , employer match structures including both 50%-of-contribution and full 1:1 match formulas, IRS contribution caps (\$24,500 employee / \$47,500 combined profit sharing and dividends), salary growth compounded annually, and monthly contribution deposits for realistic compounding.

#### S&P 500 Side-by-Side Benchmark

Every projection runs a parallel S&P 500 scenario using the same starting balance, salary, and contributions — with a configurable benchmark match percentage for a fair comparison. The ESOP advantage is surfaced prominently as a dollar figure at the top of the results: "By staying at [Company], you could build +\$X more."

#### White-Label Delivery

Each client receives a fully branded calculator — their company name, logo, primary and secondary colors, and plan-specific data baked in. Employees see no NodeCo or ESOP Wealth Calc branding. Two deployment options: a hosted URL at [esopwealthcalc.com/clientname](https://esopwealthcalc.com/clientname) served by a Node.js server with per-client JSON configuration files, or a self-contained HTML file for SharePoint or intranet embedding.

## TECHNOLOGY STACK

Component	Tool	Purpose
Simulation Engine	Vanilla JavaScript	Monte Carlo simulation, projection math, and chart rendering — runs entirely in the browser with no server-side computation per request
Charting	Chart.js 4.4	Growth projection line chart with confidence bands, stacked contribution bar chart, historical returns bar chart
Hosted Server	Node.js + Express on Railway	Serves client-specific calculators at /slug URLs by injecting JSON config into the HTML template at request time
Static Hosting	Netlify	Landing page, guarantee page, privacy page, and demo calculator with automatic HTTPS and Netlify Forms integration
DNS	Netlify DNS	Full DNS zone management via Netlify nameservers — enables proxy routing from esopwealthcalc.com/slug to Railway
Client Config	JSON files in GitHub	Per-client configuration (branding, plan data, historical returns) stored as JSON — Railway auto-redeploys on every GitHub push
Contact Forms	Netlify Forms	Contact form submissions delivered to hello@esopwealthcalc.com with full field data
Email	Google Workspace	hello@esopwealthcalc.com as a user alias domain on nodeco.ai Google Workspace — all mail routes to davidwatkins@nodeco.ai
PDF Export	Browser Print API	Chart.js canvases captured as PNG images before print dialog fires — produces a 2-page branded PDF report

## DEPLOYMENT ARCHITECTURE

### How a new client goes live

Adding a new client requires no code changes. The entire onboarding process is data collection and configuration:

- **Step 1 — Collect client data: c**
- **Step 2 — Create config file: a**
- **Step 3 — Push to GitHub: R**
- **Step 4 — Add redirect: o**
- **Step 5 — Redeploy Netlify: d**

*A 14-field onboarding form, a JSON file, two GitHub commits, and a Netlify redeploy. That's the entire process to go from signed contract to live client URL.*

NodeCo internal deployment process

## NODECO TRIAL CONFIGURATION

## Walking through the platform as a live client

NodeCo used its own company as the first trial client to validate the full onboarding and deployment workflow end-to-end. The NodeCo configuration uses the company's actual branding, stock price, and plan structure.

Field	NodeCo Value	Notes
Company name	NodeCo	Appears in hero, KPI labels, advantage headline, and PDF title
Primary color	#378ADD	NodeCo blue — extracted from nodeco.ai website
Secondary color	#0A0A0A	NodeCo black — used for inputs section and S&P chart line
Stock price	\$86.60	Current share price — fixed divisor in dividend formula
Profit sharing %	6%	6% of annual salary added to Company Stock at year-end
Dividend rate	3%	$(\text{Stock Value} \div \$86.60) \times 3\%$ applied annually
Company match	6% (full 1:1)	NodeCo matches 100% of employee contribution up to 6% — not the default 50% formula
S&P benchmark match	4%	Industry average match on the comparison side for fair benchmarking
S&P benchmark rate	7.4%	Standard long-term S&P 500 average annual return
Historical returns	2015–2024 (10 years)	Placeholder data for trial — to be replaced with actual NodeCo stock history
Live URL	esopwealthcalc.com/nodeco	Served by Railway, proxied via Netlify _redirects
Deployment option	Hosted URL	Option B — no client-side file management required

## OUTCOMES & BUSINESS IMPACT

### For ESOP Companies (Clients)

- Employees see their personalized retirement projection in under 60 seconds
- ESOP advantage quantified as a specific dollar figure — not a general talking point
- Fully branded tool feels native to the company — no third-party product visible to employees
- PDF report employees can keep, share with a spouse, or review with a financial advisor
- Live in under 24 hours from data submission — no engineering resources required
- Annual updates (new stock price, new year's return) completed within one business day

### For NodeCo (Product)

- Repeatable delivery process — new client onboarding requires no code changes
- Each client JSON config is isolated — one client's data cannot affect another's
- GitHub-to-Railway pipeline means updates deploy automatically on every push
- Netlify proxy routing keeps client URLs clean at esopwealthcalc.com/clientname
- Contact form submissions and email forwarding fully automated via Google Workspace
- Platform scales to any number of clients without infrastructure changes

## PLANNED ENHANCEMENTS

Feature	Description
n8n auto-reply	Connect Netlify Forms webhook to n8n to trigger a personalized auto-reply email to every contact form submission
Client dashboard	Simple admin view showing all active client configs, last-updated dates, and one-click config editing
Google Form onboarding	Structured onboarding form that auto-populates a Google Sheet — eliminates manual data entry during client setup
Vesting schedule modeling	Add configurable vesting schedule inputs so employees see the impact of leaving before full vesting
Mobile PDF optimization	Further print CSS refinement for mobile browser PDF export across iOS and Android
Multi-scenario comparison	Allow employees to run and compare Conservative vs Historical scenarios side-by-side in a single view
Referral tracking	UTM parameter support to track which outreach campaigns and channels are driving demo requests

## WHY THIS APPROACH MATTERS

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Employee retention tools are dominated by expensive HR platforms designed for large enterprises. For the 6,500 ESOP companies in the United States — most of them mid-market manufacturers, professional services firms, and construction companies — enterprise HR software is overbuilt, overpriced, and disconnected from the specific retention advantage that employee ownership creates.

What this platform demonstrates is that a purpose-built, AI-adjacent tool using modern web infrastructure can deliver a genuinely differentiated employee experience at a fraction of the cost of enterprise alternatives. The system:

- Requires no client-side engineering — HR teams deploy it without IT involvement
- Adapts to every client's unique plan structure through a single JSON configuration file
- Scales to any number of clients without infrastructure changes or per-client engineering
- Costs a fraction of custom development for each company individually
- Tells a story that generic 401k calculators structurally cannot — because it uses real company data

This solution demonstrates that sophisticated, company-specific financial tools are no longer the exclusive domain of large public companies with dedicated benefits engineering teams. Mid-market employee-owned companies can now give their employees the same quality of financial visibility — branded, personalized, and live within a day.

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### Built with NodeCo

This platform was designed and deployed by NodeCo — a growth agency that helps small and midsize businesses design, deploy, and scale AI-powered workflows without enterprise complexity. The ESOP Wealth Calculator is available as a white-label product for any employee-owned company. Learn more at [esopwealthcalc.com](https://esopwealthcalc.com).

[nodeco.ai](https://nodeco.ai)