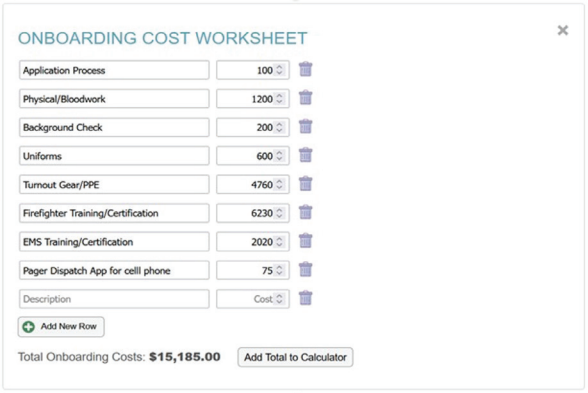
NVFC Return on Investment (ROI) and Individual Volunteer Value of Retention Calculator: User Guide

The ROI Calculator requires a simple set of data:

- Individual hours volunteered per month: includes time responding to calls, performing station duties like washing vehicles, meetings, community relations events (parades, school visits), fire prevention activities, inspections, completing a training program like Firefighter 1 or EMT, and anything else your department does for the community.
- Onboarding costs: The NVFC Volunteer Fire Service Fact Sheet provides an example of typical onboarding costs your department may want to consider. The calculator's Onboarding Cost Worksheet will assist you in listing your investment costs. You may enter zero for onboarding costs if you don't need those costs considered.
- State: Pick your state to select your state-specific volunteer rate. The calculator will automatically apply the rate. Alternatively, you may also use the US national average.
- Years of Service: We recommend entering 5 years for new firefighters and the actual years of service for established firefighters. Note: service years provide the volunteer retention value data, displayed below the ROI chart output.



The ROI graph will show three timeframes:

A. The period of time when your department's investment in the volunteer exceeds their donated value. This period of ROI is shown as a negative value.
B. The neutral point when when your department's investment in the volunteer equals their donated value. This period of ROI is zero.
C. The point when the volunteer's donated value exceeds the department's investment. This is when the return on investment is positive.

Note: The ROI will be positive from day 1 if zero dollars are entered for onboarding costs.

Remember that the ROI calculator can help you understand the ROI of people, whether they are new to the department or long-term volunteers. The Individual Volunteer Value of Retention chart, found below the ROI chart, shows the value the department receives by retaining a volunteer for one or more years.

The three examples show how you can apply these calculations to different scenarios.
NVFC Return on Investment (ROI) and Individual Volunteer Value of Retention Calculator: Use Examples
Example 1: A new volunteer firefighter, Ashley, joins the Anytown Fire and EMS Department in New Hampshire. Onboarding costs for Ashley total $10,525, and consist of:

- Driving and criminal background check: $200
- NFPA Compliant physical: $1,100
- Local Firefighter 1 program: $4,725
- New turnout gear and uniforms: $4,500

Ashley completes the 210-hour FF1 program in a little over 5 months, or an average of 40 hours per month. She then contributes 40 hours monthly, responding to calls and handling station duties.

Step 1: Input the average monthly hours donated by Ashley, which is 40.

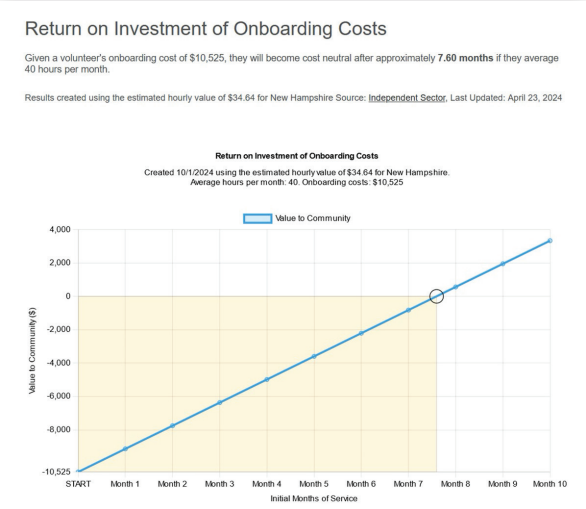
Step 2: Input Anytown Fire and EMS Department Onboarding/Investment cost in Ashley, $10,525

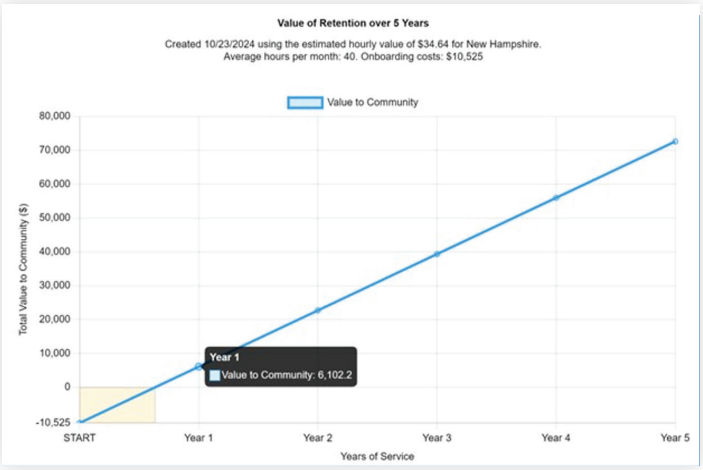
Step 3: Select the US average volunteer rate or your state rate. In this example, we are using the state of New Hampshire.

Step 4: Input years of service. The second calculator will apply this value to show the value of retaining this volunteer. Five years is a recommended time frame for a new firefighter.

Step 5: Press Calculate.

Step 6: Press Save Chart to download the chart and print it later. Note: If your device is set to dark mode, the file may appear dark when opened in an editing app. However, it will present properly when inserted into a document.





ROI chart result: Anytown Fire's ROI is negative until Ashley's volunteer time value equals Anytown Fire's investment. That neutral point occurs about mid-way through the 7th month of service. After that crossover point, the ROI is positive for Anytown Fire's investment in Ashley as she continues volunteering time and serving the community.

Individual Volunteer Value of Retention chart result: Ashley's volunteer retention value at the end of year one is $6,102.20 after onboarding costs are considered. Hover your mouse over the year-one crossover point to see. If Ashley stays for two years, her retention value is $22,729.40. If Ashley stays five years, her retention value is $72,611.

Example 2: Ron, an EMT for the last 3 years with the Somewhere (Texas) Volunteer EMS, wants to serve at the Advanced EMT Level. He asked for and received approval to attend AEMT School.

Somewhere Volunteer EMS has made a new investment in Ron, and the ROI Calculator can help understand the time necessary to see a return on this investment. The calculator is used in the same way as Example 1.

Somewhere Volunteer EMS's Investment cost in Ron is $4360 (total for the AEMT class tuition and textbooks). Ron has 9 months of class and clinical coursework and volunteers 292.5 hours to complete his class, an average of 32.5 hours per month. He also responds an additional 17.5 hours per month on incidents, for a total volunteer time contribution of 50 hours per month. After class ends, he volunteers 50 hours a month between responses, station duties, and meetings.

Calculator Inputs

Step 1: Input the average hours per month donated by Ron, 50

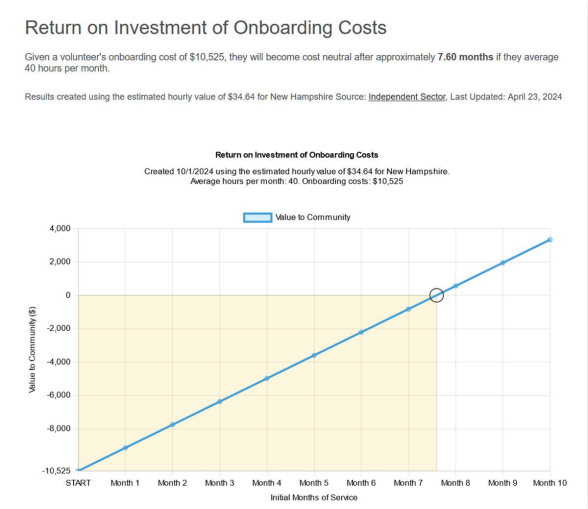
Step 2: Input Somewhere Volunteer EMS's Investment cost in Ron, $4,360

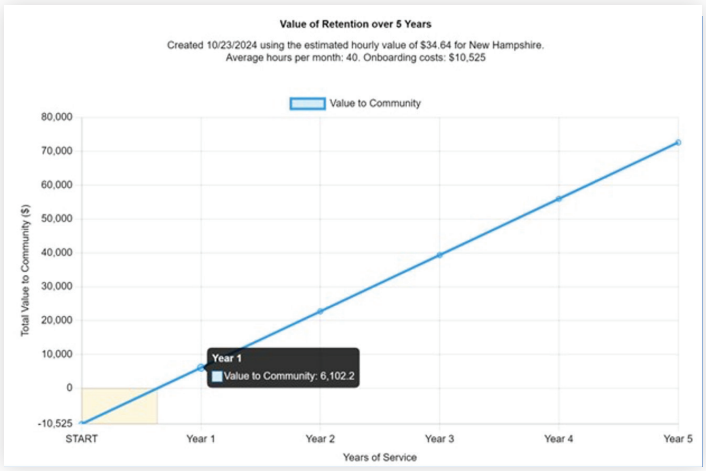
Step 3: Select the US average volunteer rate or your state rate for more detailed results. In this example, Texas.

Step 4: Input years of service. The second calculator will apply this value to show the value of retaining this volunteer. Five years is a recommended timeframe.

Step 5: Press Calculate.

Step 6: Press Save Chart to download the output and print it later. Note: If your device is set to dark mode, the file may appear dark when opened in an editing app. However, it will present properly when inserted into a document file.





ROI chart result: Somewhere Volunteer EMS's ROI is negative until Ron's volunteer time value equals its investment. That neutral point occurs between the 2nd and 3rd month of service after the new investment in Ron. After that crossover point, the ROI is positive for Somewhere Volunteer EMS as Ron continues volunteering his time and serving the community.

Individual Volunteer Value of Retention chart result: Ron's volunteer retention value at the end of year one after the new AEMT Class investment in him, is $14,804 after the costs are considered. Hover your mouse over the year-one crossover point to see. If Ron stays for two years, his retention value is $33,968. If Ron stays five years, his retention value is $91,460.

Example 3: The Anytown Fire and EMS Department in New Hampshire wants to understand Jim's retention value. Jim has diligently served for 15 years, and though Jim has varied from 15 to 45 hours a month over the years, 20 hours per month is the average.

Calculator Inputs

Step 1: Input the average hours per month donated by Jim, 20

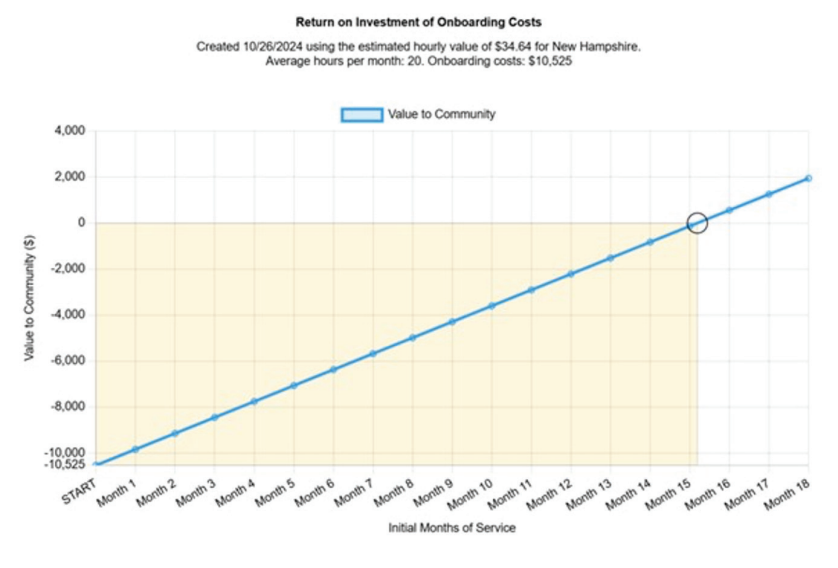
Step 2: If not considering onboarding or investment costs into Jim since he started, enter zero. If you want to consider onboarding or investment costs in today's dollars, enter them here. For this example, we are entering Ashley's onboarding costs as she is from the same department ($10,525), and the chart output is in "today's" dollars.

Step 3: Select the US average volunteer rate or your state rate for more detailed results. In this example, New Hampshire.

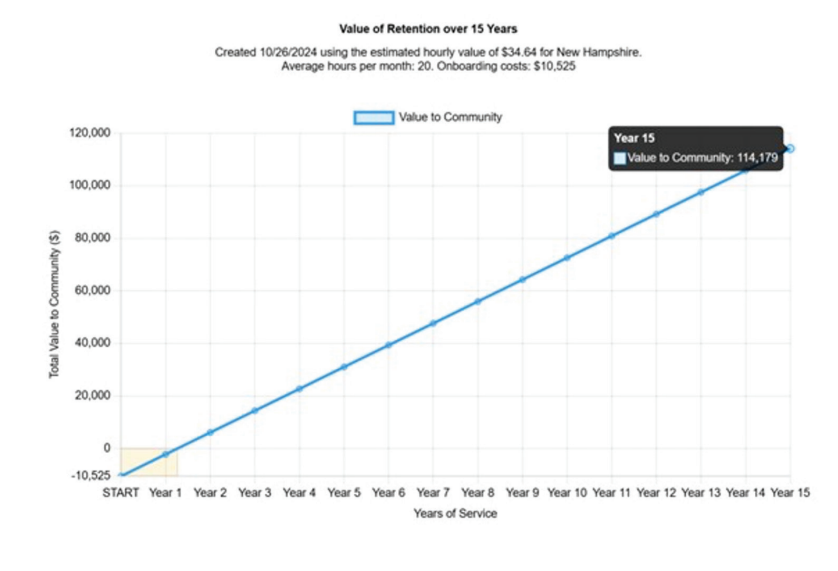
Step 4: Input years of service, 15 years

Step 5: Press Calculate. Note: Scroll to the Value of Retention graph below the ROI calculator. The value given is in "Today's Dollars".

Step 6: Press Save Chart to download the output and print it later.



ROI chart result: Though Anytown Fire and EMS's question in this example does not focus on ROI, the ROI result is displayed in the first chart, and feeds into the Individual Volunteer Value of Retention chart. The ROI is negative until Jim's volunteer time value equals Anytown Fire and EMS's investment. That neutral point occurs between the 15th and 16th month of service after the usual onboarding and training costs and afterward, the ROI is positive for Anytown Fire and EMS.



Individual Volunteer Value of Retention chart result: After subtracting the usual onboarding costs, Jim has contributed in "Today's Dollars" $114,179 to Anytown for the 15 years of service, which is his retention value. Hover your cursor over the 15-year crossover point to see. Breaking that down further, Jim contributes $7,611.93 annually.

The town council member then asked how the NH volunteer value rate compares to the US average rate. After changing the rate selection to US Average, the Calculator result changes to Jim contributing $110,039 to Anytown over the 15 years of service, a slight reduction compared to the New Hampshire state-specific volunteer rate.