

Northern Nevada Plumbers & Pipefitters Variable Defined Benefit Plan

June 2019

Paul Graf and Brian Harper

Background Retirement Planning Challenges

Providing retirement benefits and saving for future retirement is challenging



You don't know how long you will live



You don't know the value of your Plan's assets in the future



You don't know how reliable contributions will be to fund benefits



You don't know how much things will cost in the future

Background Current Retirement Program

U.A. Local 350 members currently participate in two retirement plans



Background Current Retirement Program

Plumbers & Pipefitters National Pension Fund

- Traditional pension plan provides lifetime income in retirement
- Low benefit accrual rate due to large amount of unfunded liability
- Benefits are not protected from inflation
- Benefit accruals are capped at 2,100 hours per year



Background Current Retirement Program

U.A. Local 350 Retirement Plan – 401(k) Plan

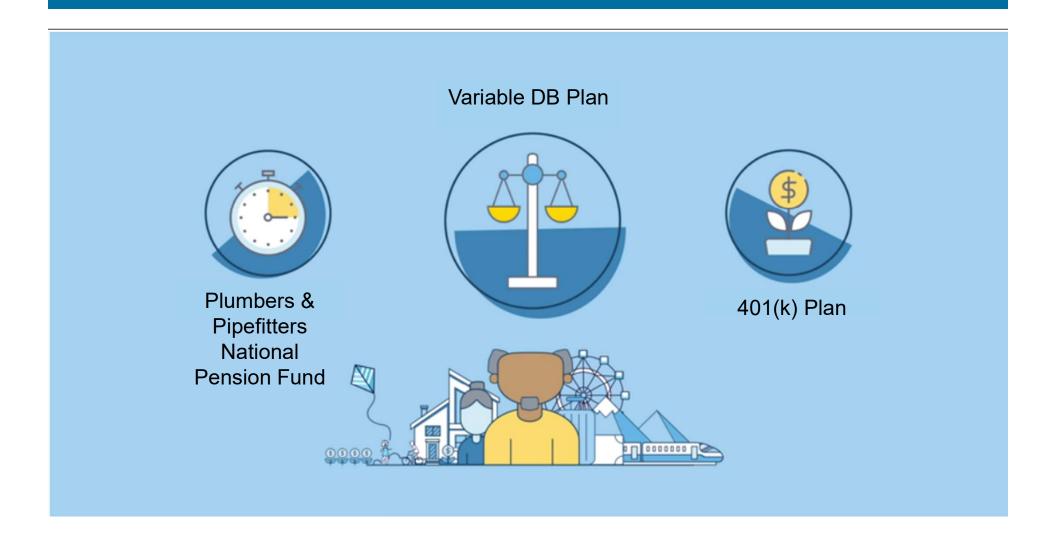


- Traditional 401(k) plan
- Allows members to save additional money for retirement
- \$0.75 / hour employer contribution
- Employee elective deferrals of \$0 to \$8 per hour, in \$1 increments
- Benefits are typically paid as a lump sum payout at retirement
- Retiree is responsible for investment risk and longevity risk



401(k) Plan

New Variable Defined Benefit Plan



New Variable Defined Benefit Plan

Variable DB Plan



No cap on annual benefit accruals

Transition benefits



Stays fully funded in all markets



Minimizes withdrawal liability



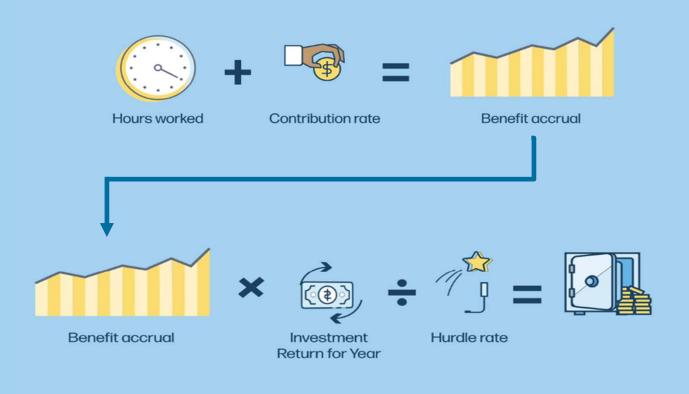
Stabilizes contributions



Keeps pace with inflation

New Variable Defined Benefit Plan

Earning Benefits Under the Variable DB Plan



Key Provisions Variable Defined Benefit Plan

Plan Provision	
Benefit Accrual	 Hours based benefit accrual with "Save and Restore" provision. 1,500 hours = 1 benefit credit
Hurdle Rate	• 5.0%
Annual Benefit Increase Cap	8.0% (excess used to fund Save and Restore reserve)
Vesting Requirement	• 5 year cliff (750 hours = 1 year of vesting service); or age 65 & active
Early Retirement	 Normal retirement age = 65 Eligible for early retirement at age 55 with 5 years of service. Unreduced benefits available at age 62, must retire from active service Rule of 85 (age + service = 85+): Unreduced benefits available at age 60, must retire from active service
Transition Benefits	 Temporary transition in place for 10 years Larger benefit accruals provide for eligible group during 10 year transition period Must be age 50+ and have 10+ years of service on August 1, 2019 to be eligible

Key Provisions Variable Defined Benefit Plan

Ongoing Benefit Formula

Annual Benefit Accrual

- Standard Benefit Accrual rate = \$63* per benefit credit (subject to Transition Provisions)
- Benefit is paid monthly at NRA (age 65)
- 1,500 hours worked = 1 benefit credit
- 75 hours worked = 0.05 benefit credits
- No cap on benefit credits earned in a plan year

Transition Benefit Provisions						
Age and Service at Transition	Benefit Accrual Rate First 10 Years	Benefit Accrual Rate Starting Year 11				
Age 55+ & 10+ Yrs of Svc	\$81*	\$63*				
Age 50 – 54.9 & 10+ Yrs of Svc	\$72*	\$63*				
Less than 10 Yrs of Svc	\$54*	\$63*				

^{*}Benefit accrual rates shown above are based on a pension contribution rate of \$3.00 per hour. Benefit accrual rates will be pro-rated for contribution rates different than \$3.00 per hour.

Annual Benefit Accruals Variable Defined Benefit Plan



Hours worked: Varies

Employee contribution: \$3.00/hr.

Accrual rate: \$63.00/mo.

Hours	Credit	Hours	Credit	Hours	Credit
0 - 74	0	675 - 749	0.45	1350 - 1424	0.90
75 - 149	0.05	750 - 824	0.50	1425 - 1499	0.95
150 - 224	0.10	825 - 899	0.55	1500 - 1574	1.00
225 - 299	0.15	900 - 974	0.60	1575 - 1649	1.05
300 - 374	0.20	975 - 1049	0.65	1650 - 1724	1.10
375 - 449	0.25	1050 - 1124	0.70	1725 - 1799	1.15
450 - 524	0.30	1125 - 1199	0.75	1800 - 1874	1.20
525 - 599	0.35	1200 - 1274	0.80	1875 - 1949	1.25
600 - 674	0.40	1275 - 1349	0.85	1950 - 2024	1.30

	Accrual Rate	Hours Worked	Benefit Credit	Benefit Earned in Year
Year 1	\$63.00/mo.	750	0.50	\$63.00 x 0.50 = \$31.50/mo .
Year 2	\$63.00/mo.	1,150	0.75	\$63.00 x 0.75 = \$47.25/mo.
Year 3	\$63.00/mo.	1,500	1.0	\$63.00 x 1.0 = \$63.00/mo.
Year 4	\$63.00/mo.	1,750	1.15	\$63.00 x 1.15 = \$72.45/mo.
Year 5	\$63.00/mo.	1,950	1.30	\$63.00 x 1.30 = \$81.90/mo .

Annual Benefit Adjustments Variable Defined Benefit Plan



Hours worked: 1,500/yr. (= 1 benefit credit)

Employee contribution: \$3.00/hr.

Accrual rate: \$63.00/mo.

Hurdle rate: 5.00%

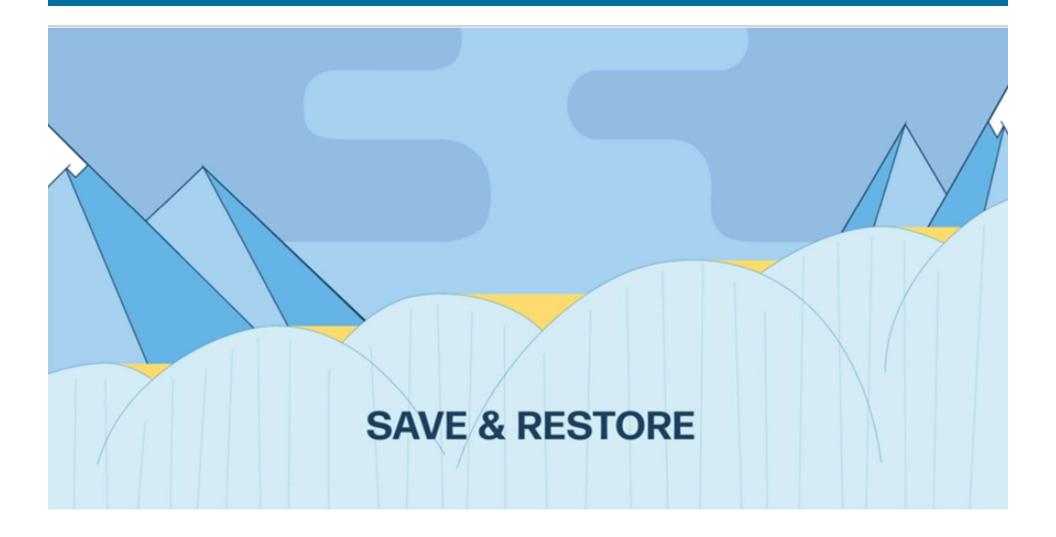
Benefit adjustments shown below due to investment returns are simplified for presentation purposes.

Actual adjustments will be slightly different.

Year	BOY Benefit	Benefit Accrual	Prior Yr. Inv. Return	Excess Return	EOY Benefit (Pre-adjustment)	EOY Benefit (Post-adjustment)
1	\$0	\$63.00	5%	0%	\$63.00	\$63.00 x 1.00 = \$63.00
2	\$63.00	\$63.00	8%	3%	\$63.00 + \$63.00 = \$126.00	\$126.00 x 1.03 = \$129.78
3	\$129.78	\$63.00	10%	5%	\$129.78 + \$63.00 = \$192.78	\$192.78 x 1.05 = \$202.42
4	\$202.42	\$63.00	15%	8%*	\$202.42 + \$63.00 = \$265.42	\$265.42 x 1.08 = \$286.65
5	\$286.65	\$63.00	7%	2%	\$286.65 + \$63.00 = \$349.65	\$349.65 x 1.02 = \$356.64

^{*} The 8% annual cap applies

Variable Defined Benefit Plan



Save and Restore Provision Variable Defined Benefit Plan

Save and Restore Provision





- Save and Restore provision is designed to prevent benefits from decreasing in a down market
- A "rainy day fund" is established to temporarily restore benefits when investment returns fall short of 5%
- Rainy day fund has two sources of funding:
 - 1. Small portion of hourly contributions made to the Plan
 - 2. Excess investment returns when the plan's assets perform exceptionally well

Save and Restore Provision Variable Defined Benefit Plan



Active Participant

Hours worked: 1,500/yr. (= 1 benefit credit)

Employee contribution: \$3.00/hr.

Accrual rate: \$63.00/mo.

Hurdle rate: 5.00%

Benefit adjustments shown below due to investment returns are simplified for presentation purposes.

Actual adjustments will be slightly different.

Year	BOY Benefit	Benefit Accrual	Prior Yr. Inv. Return	Excess Return	EOY Benefit (Pre-adjustment)	EOY Benefit (Post-adjustment)
1	\$0	\$63.00	5%	0%	\$63.00	\$63.00 x 1.00 = \$63.00
2	\$63.00	\$63.00	8%	3%	\$63.00 + \$63.00 = \$126.00	\$126.00 x 1.03 = \$129.78
3	\$129.78	\$63.00	2%	-3%	\$129.78 + \$63.00 = \$192.78	\$192.78 x 0.97 = \$187.00

Using the rainy day fund, benefit after Year 3 is restored to \$192.78

4	\$187.00	\$63.00	17%	8%*	\$187.00 + \$63.00 = \$250.00	\$250.00 x 1.08 = \$270.00
5	\$270.00	\$63.00	7%	2%	\$270.00 + \$63.00 = \$333.00	\$333.00 x 1.02 = \$339.66

^{*} The 8% annual cap applies

Save and Restore Provision Variable Defined Benefit Plan



Retired Participant

Benefit at Retirement: \$2,000/mo.

Benefit adjustments shown below due to investment returns are simplified for presentation purposes.

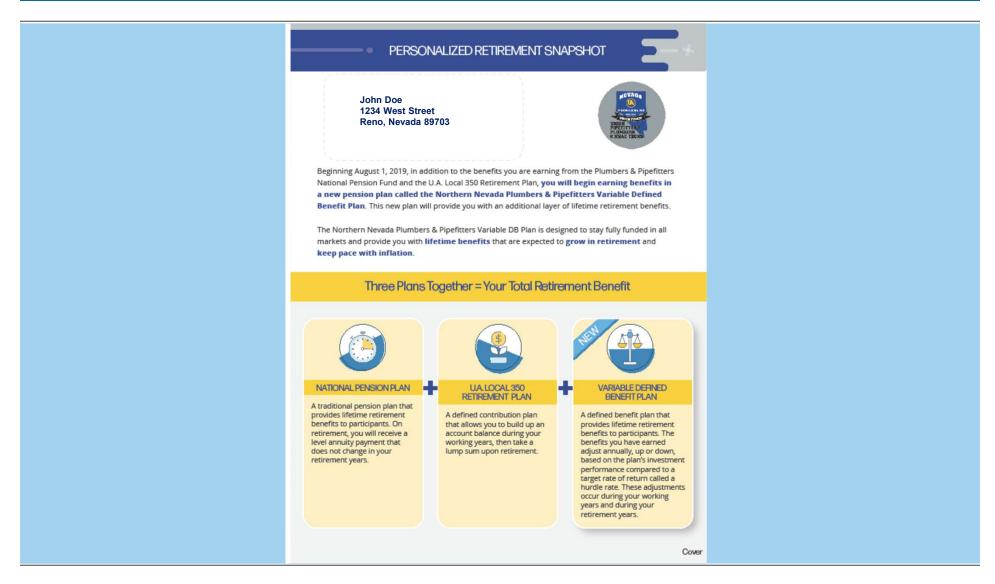
Actual adjustments will be slightly different.

Year	BOY Benefit	Prior Yr. Inv. Return	Excess Return	Benefit (Post-adjustment)
1	\$2,000.00	5%	0%	\$2,000.00
2	\$2,000.00	8%	3%	\$2,000.00 x 1.03 = \$2,060.00
3	\$2,060.00	10%	5%	\$2,060.00 x 1.05 = \$2,163.00
4	\$2,163.00	-2%	-7%	\$2,163.00 x 0.93 = \$2,011.59

Using the rainy day fund, benefit after Year 4 is restored to \$2,163.00

5	\$2,011.59	16%	8%*	\$2,011.59 x 1.08 = \$2,172.52
---	------------	-----	-----	--------------------------------

^{*} The 8% annual cap applies





How the New Variable DB Plan Works

You will earn a benefit each year based on covered hours worked with U.A. Local 350 and the hourly contribution rate being made on your behalf. The total benefit is payable as a monthly annuity in retirement.

Once benefits are earned, they are adjusted to reflect the Plan's actual investment performance compared to the pre-established hurdle rate of 5%. Your accumulated benefits will therefore change from year to year, increasing in years when the return on plan assets is higher than 5% and decreasing in years when the return on plan assets is lower than 5%.

The plan aims to protect benefits from decreasing during a market downturn by using a rainy-day fund. This rainy-day fund will be financed from two main sources. First, a portion of plan contributions will feed the fund annually. Second, we limit the increase in the annual benefit adjustment to 8%. This means when investment returns exceed the hurdle rate by more than 8%, the excess return will be carved off and added to the rainy-day fund. This rainy-day fund is used to temporarily restore benefits to their highest previous level when investment returns fall short of the 5% hurdle and benefits would otherwise go down.

We anticipate that the plan's investment return will, on average, exceed the 5% hurdle rate we have set, which means the benefits you earn under this plan should keep pace with inflation, maintaining your purchasing power during your retirement

Benefit Accruals and Transition Benefits

Under the Variable DB Plan, participants will earn Variable Benefit Accruals based on hours worked and the hourly contribution rate paid into the plan. It will take 1,500 hours to earn a full Benefit Credit; partial Benefit Credits are granted for each 75-hour increment worked. There is no limit on the number of Benefit Credits you can earn in a year...so the more you work, the bigger the benefit you will earn.

For an hourly contribution rate of \$3.00, the Standard Benefit accrual for each Benefit Credit in the future (i.e. 1,500 hours) is scheduled to be a monthly retirement benefit of \$63.00 (accruals will also be adjusted on a prorated basis if hourly contribution rates are different than \$3.00). If your hours for a year are different than 1,500 hours, you may earn more or less than the \$63.00 benefit for the year.

As an example, if you were to work at least 1,875 hours but less than 1,950 hours in a year, you would earn 1.25 Benefit Credits for the year. At the Standard Benefit accrual, this would then result in a monthly retirement benefit of \$78.75 or that year's work (\$78.75 = \$6.30.0 x 1.25).

The Standard Benefit accrual is not scheduled to apply at first. This is because older workers will have fewer years to accrue benefits under this plan compared to younger workers. There will be less time for their Variable Benefit Accruals to grow, and the benefits they receive through the National Plan may not be sufficient to meet their needs throughout retirement.

To help level the playing field, the Trustees decided to implement a temporary transition period for the first 10 years of the Variable DB plan. During this transition period, active participants will accrue benefits at different rates depending on their age and service as of August 1, 2019, the first day of the new plan. After the first 10 years, beginning August 1, 2029, all active participants will accrue benefits at the same. Standard Benefit accrual.

With this 10-year transition period, younger workers—who have many more years to accrue benefits and realize the impact of investment return adjustments on their Variable DB retirement benefit—are helping those nearing retirement get the most out of the new plan.













Hours worked

Contribution rate

Benefit accrual

2

2

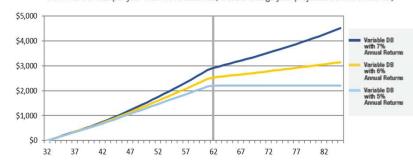
÷.

How the New Variable DB Plan Will Work for You

Your Personalized Benefit Projection with Different Long-term Returns

The chart below shows your projected monthly benefit amounts through age 85, if you work until age 62, then retire. The projection is based on the assumptions listed here, including:

- · Your current age and number of years of service as of August 1, 2019
- Assumed contribution rate of \$3.00/hour.
- · A projection of your future hours worked under the plan at 1,900 hours per year
- An accrual rate of \$54.00/mo. for the first 10 years and the Standard Accrual Rate of \$63/mo.
 thereafter per benefit credit
- · A hurdle rate of 5% and annual benefit increase cap of 8%
- Age of 62 as your retirement age. (If you decided to retire at a different age or if you plan to
 work more or less per year than we've assumed, it could change your projected benefit amounts.)



The benefit you will receive through the Variable DB Plan will vary depending on the plan's actual investment returns, both before and after your retirement date – the higher the returns, the higher the benefit. You will also receive benefits from the National Plan and the Local 350 Retirement Plan, neither of which are included in these projections.

Key Features of Your Personalized Benefit Projections

Variable Benefits Based on Performance:

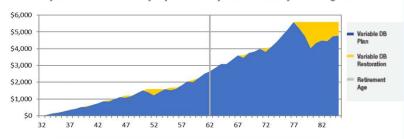


Each year, your Variable benefit amount will change based on the prior year's investment return. If returns are good and exceed the 5% hurdle rate, your benefit will go up. In years when investment returns are good and exceed the 5% hurdle rate, your benefit will go up. In years when investment returns exceed the hurdle rate by more than 8%, the excess return will be carved off and added to the Save and Restore reserve; a rainy-day fund that is intended to provide protection from benefit decreases when returns are low. If returns are less than the 5% hurdle rate, your Variable benefit amount would decline. However, if we have sufficient assets in the Save and Restore reserve, your plan is set up to allow the Variable benefit to be temporarily restored to it's previous high level using assets from the rainy-day fund. In the unlikely event that the rainy-day fund runs out, benefits will go down - however, we believe the funding is set at a high enough level that the chance of the Save and Restore reserve running dry is unlikely.

Personalized Benefit Projection With "Save and Restore" Feature

The following chart shows a projection of your benefit using actual historical returns. It assumes we have the same pattern of investment returns beginning after Aug. 1, 2019 that occurred in the U.S. starting in 1955. Aside from the investment returns, the projected benefits shown below are based on the same data and assumptions outlined for the previous projection.

Your projected benefit amount each year is the total of the dark blue and (if the Save and Restore feature is necessary) yellow sections. You can see that even in the face of market downturns, your benefit would continue to grow over time. And, the rainy-day fund would restore your benefit so the amount you receive each month may stay flat for a few years but most likely would not go down.



To create the pattern on investment returns based on historical returns between 1955 and 2018, we assumed the plan's assets are invested in a 65% stock/35% bond portfolio, using:

- . Stocks the S+P 500 Index
- Bonds from 1980 to 2018 the Barclays Aggregate Bond Index and from 1955-1979 a mix of 40% 3-Month Treasury Bills and 60% 10-Year Treasury Bonds.

Variable DB Restoration:



The Variable DB benefit includes a "Save and Restore" feature that protects benefits from decreasing during a market downturn by using a rainy-day fund to secure benefits. While not guaranteed, the rainy-day fund is intended to be used to restore benefits when the plan investment returns fall short of the hurdle rate and benefits would otherwise decline.

Keeping Pace with Inflation



The value of the underlying pension benefit you earn under the new Variable DB Plan will increase or decrease based on the Plan's investment returns. Monthly benefit amounts are adjusted annually based on the plan's investment performance compared to a 5% hurdle rate established by Plan Trustees. We anticipate the Plan's assets will be able to earn more than this hurdle rate per year, on average. As a result, benefit amounts are expected to increase over time, which helps keep pace with inflation, rather than remaining at a fixed amount each year.

5

