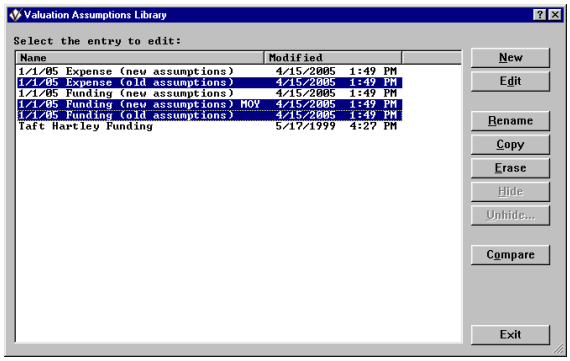
What's New! ProVal®

ProVal version 2.23 **June 2005**

ProVal version 2.23 introduces new ways to view and edit **library entries**, **service definitions** to explicitly handle plans with fractional service accruals, and parameterized calculation of **accrual rates for nondiscrimination testing**. You'll find details about these and other enhancements below.

Interface

- In ProVal libraries, you can now:
  - Erase or hide multiple entries at once. To select multiple entries, hold the Shift or Ctrl key down while clicking with the mouse.

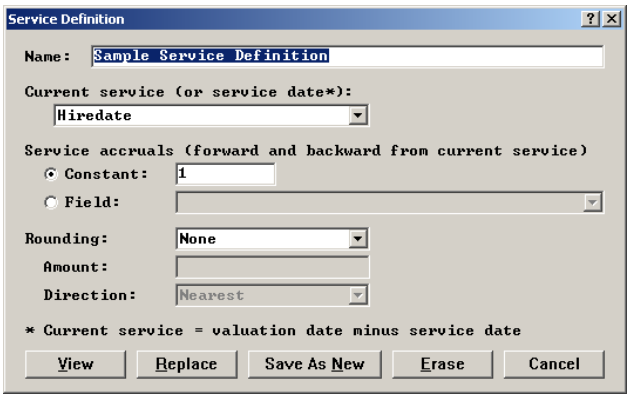


  - Sort library entries by name or date last modified – e.g., to quickly find the entry you last worked on.

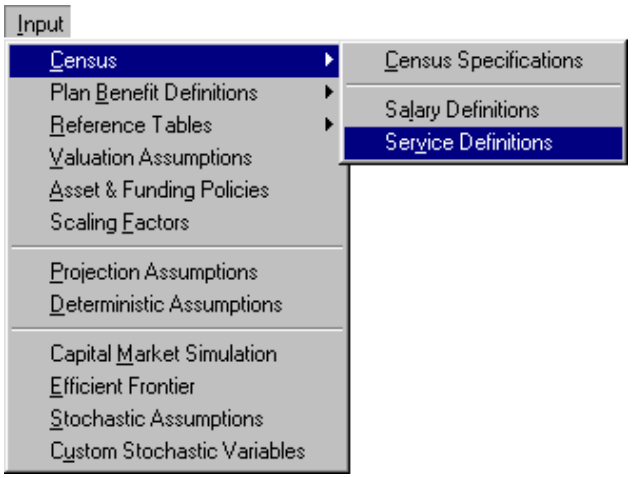
  - Rename entries without opening them.
  - Make a copy of an entry (avoiding the practice of editing an entry, saving it as new, and then editing the new entry).
  - Quickly scroll to an item by typing the first few letters of its name without pausing.
- New  buttons let you create and unhide reference tables from within Valuation and Projection Assumptions. Look for these "edit" buttons throughout ProVal to edit nearly anything from within another library.
- A new List Objects command (on the File menu) lets you list the entire inventory of objects in the current client.
- When pasting into a spreadsheet that allows row insertion (e.g., increase rate tables), ProVal will now automatically insert new rows as needed to accommodate the data.

Pension Plans

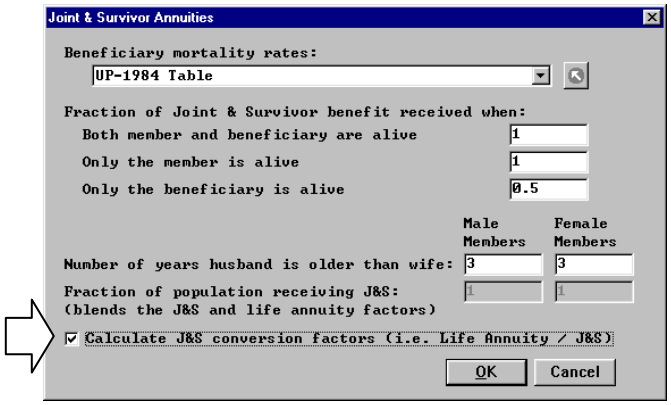
- Service definitions are now available to handle plans with fractional service accruals (e.g., hours-related service) and rounding rules (e.g., completed years, completed months, etc.). Service definitions can be used to define benefit eligibility service, benefit accrual service, and more.



- Service definitions can be found (along with the existing libraries for Census Specifications and Salary Definitions) under Input > Census.



- In Benefit Component Tables > Calculate Annuity Factors > Joint & Survivor Annuities, a new checkbox lets you calculate J&S conversion factors in a single table (i.e., Life Annuity / J&S). This is particularly useful for REA death benefit payment forms.



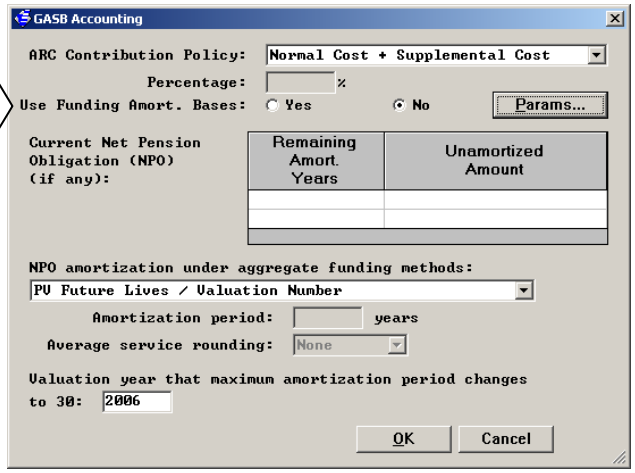
Nondiscrimination Tests

- The calculation of accrual rates, with and without adjustment for permitted disparity, has now been parameterized. This avoids the previous practice of using several valuation runs and expression sets to calculate accrual rates.

See Nondiscrimination Tests, page 7

Public Pension Plans

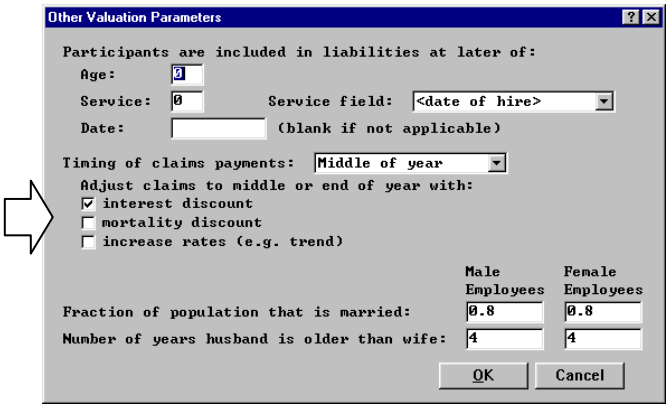
- In the GASB Accounting topic of an Asset & Funding Policy, if Normal Cost + Supplemental Cost is chosen as the ARC contribution policy, you can now specify amortization parameters different than funding for calculating the supplemental cost and Net Pension Obligation.



- A new exhibit for valuation sets and deterministic forecasts details the GASB 25 annual required contribution policy.

OPEB Plans

- In valuation assumptions, you now have a choice of how to adjust claims to mid-year (or to year-end). You separately decide whether to apply:
  - Interest discount (ProVal's previous behavior),
  - Mortality discount, and/or
  - Increase rates (e.g., trend)



- GASB 43/45 parameters are now available in OPEB Asset & Funding Policies to specify the ARC contribution policy, any existing Net OPEB Obligation (NOO), and the aggregate method NOO amortization approach.

See GASB for OPEB Plans, page 8

All Plans

- Subformula benefit formula components can now reference other subformula components (except for circular references, of course).

Output & Reporting

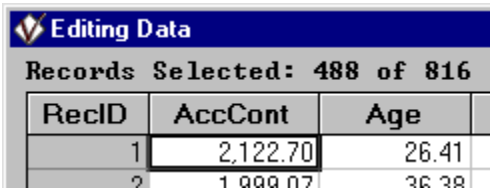
- A valuation set's results can now be written to an Access database to facilitate report writing. (This was actually released as a special update to version 2.22, but is included here in case you missed it.)

See Saving Exhibits to Access, page 5

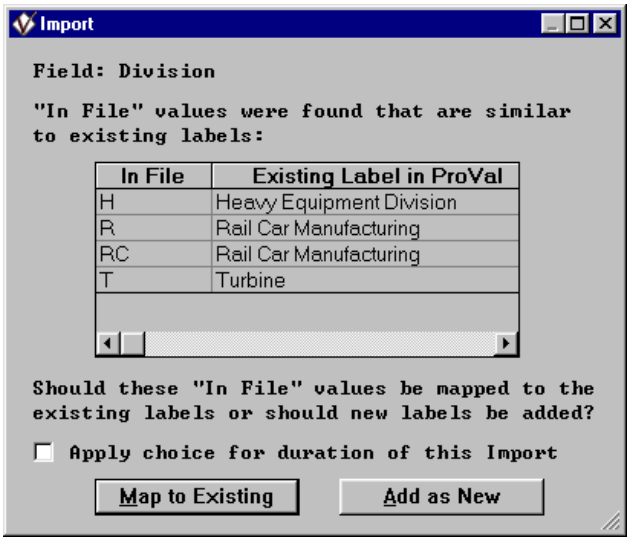
- When viewing output, the name of the output style you've loaded (if any) now appears on the listing.
- A new option lets you choose whether to list inputs above or below the numeric results in valuation and core projection output (placing the inputs above the numeric results replicates the behavior in ProVal version 2.21 and earlier).

Census Data

- Spreadsheet Edit and Print Data now display the number of selected records you are viewing.



- Character key fields (actually any field type) can now be used everywhere a key field is required in ProVal. This expands the types of key fields that can be used in Compare Database Files, Status Reconciliation, and Individual Results.
- If ProVal finds unknown codes in an import file that resemble, but don't exactly match, existing labels in the data dictionary, you can now choose how to treat them: map to existing labels or add them as new.



Tools

- PIA Calculations: You can now run a group of individuals (no longer just a single individual) and save the resulting PIA back to the database.
- Populate ProVal PS: If you connect to the internet through a proxy server, you might have previously had trouble purchasing a ProVal PS license. ProVal's internet settings now support more complex proxy server setups.

System

- Network administrators can now pack client files (both library and database files) outside of ProVal through a .BAT file. The sample batch file "Autopack0.bat" is provided as a starting point.
- Regulatory data (i.e., maximum benefits, maximum compensation, etc.) is now distributed in a version-independent way (text files named RegMaxBen.txt, RegMaxComp.txt, etc. stored in the ProVal folder). This means updated regulatory data will no longer drive the decision to adopt a new version. WinTech will distribute updated regulatory data through www.winklevoss.com/wintech/updates/proval/ as it becomes available (typically late October or early November).

Changes Log

- Be sure to read the changes log (see What's New in Help or the CHANGES.LOG file in the ProVal directory) about updates to certain calculations that may change results.

ProVal PS is a desktop toolkit for sponsors of defined benefit and medical plans, populated by the ProVal results that you generate. Since the last release of ProVal, you can now brand the home page of ProVal PS (for files that you populate) with your own logo, links to your website, etc. Simply provide us with your logo and describe any other customizations and we'll take it from there.

WinTech's Virtual Back Office

Need help bringing up new clients, converting cases, or experienced help in a ProVal area that's new to you? Why not call upon WinTech's experienced actuaries to fill in? Contact **Hank Freeman** at (203) 861-5526 for details or to request a quote.

New Members of the ProVal Team

Hank Freeman recently joined the ProVal team. He is an experienced consulting actuary and will be heading up WinTech's Virtual Back Office (see sidebar to the left). He also plans to steer ProVal PS to new heights. Be sure to say hello to him if you reach him at ProVal support.

Pallav Ray recently joined the ProAdmin team. He has experience programming DB administration systems and web sites. He is currently taking on technical responsibilities for ProAdmin's Plan Participant Web Site.

Xiaoling Zhang recently joined the ProVal team. She has a PhD in statistics and Canadian actuarial consulting experience. She will be programming actuarial features for ProVal.

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Saving Exhibits to Access

You can now save valuation set exhibits and deterministic forecast exhibits directly to a Microsoft Access database. The database is intended to be used by other programs, such as report writers. In addition to exhibits, the database also contains summary output, like that available in Valuation Set Output and Deterministic Forecast Output. Although you can save multiple run's results to a single database, it is recommended that only one run's results be written per database.

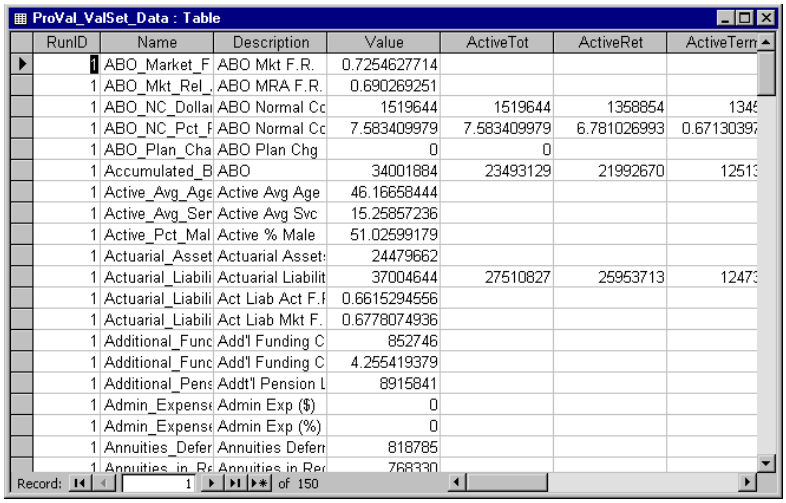
To save exhibits to an Access database:

- View **Valuation Set Exhibits** or **Deterministic Forecast Exhibits**
- Click the **File…** button
- Type in a filename and choose **Access database (*.mdb)** as the file type
- Click the **Save** button

Database structure

The database contains the following tables:

- ProVal_ValSet_Params. Basic information about the valuation set(s) or deterministic forecast(s) in the database, including the valuation date and measurement date.
- ProVal_ValSet_Data. Summary output, like that available in Valuation Set Output or Deterministic Forecast Output. Liability splits are included for actives in total, actives by decrement (retirement, termination, death, disability, and employee contributions), inactives in total, and inactives by status (retired, terminated, disabled, and survivor).



- ProVal_*. Valuation Set Exhibits data. For instance, the table ProVal_USMin contains the development of the minimum contribution. Only the exhibits you've selected are saved (exception: the Schedule of Active Participant Data exhibits cannot be saved to an Access database). Note that many valuation interest rates can be found in the exhibits. For a complete list of exhibit table names, see Exhibit Names in Word and Access in ProVal's help (Help > Help Topics > Command Reference > Output Menu > Valuation Set Exhibits).
- ProVal_ValSet_Events. Basic information about the event columns in the ProVal_* exhibit tables mentioned above. You will only have more than one event if you've elected to display exhibits by valuation event.

To facilitate use by other programs such as report writers, many elements in the database are stable. That is, they won't change from one ProVal version to the next, unless necessary, such as to incorporate a law change. The stable elements are:

- Table names (e.g., ProVal_ValSet_Params)
- Field (i.e., column) names. These are meant to be used for column lookups.
- The Name field in each table. This is meant to be used for row lookups.
- Not the Description field in each table. This is meant to improve the readability of the database when viewed with human eyes. The descriptions might change from time to time and should not be used by outside programs.

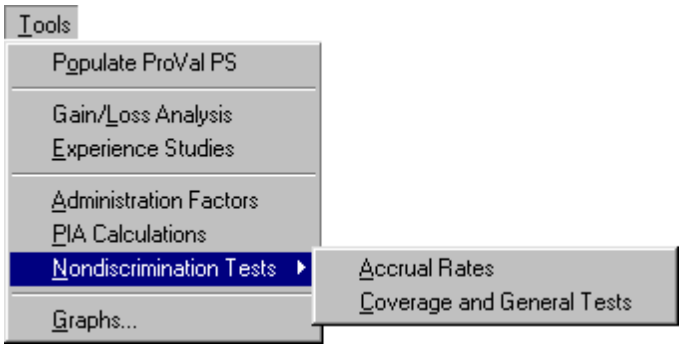
Alternative: Collection of CSV Files

If you would rather use CSV files instead of an Access database, choose **Collection of CSV Files (filename*.csv)** as the file type. Each of the database tables listed above will be saved to a separate .csv file. Each file will be prefixed by a filename that you provide. For example, if you provide the filename "val2005", ProVal will save files named "val2005ProVal_ValSet_Params.csv", "val2005ProVal_ValSet_Data.csv", etc.

Nondiscrimination Tests

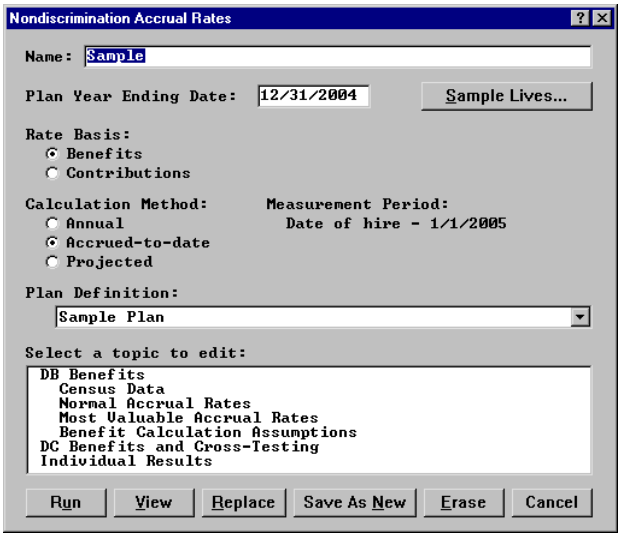
The calculation of accrual rates, with and without adjustment for permitted disparity, has now been parameterized. This avoids the previous practice of using several valuation runs and expression sets to calculate accrual rates. While parameterization cannot replace knowledge of the nondiscrimination rules, the tool should provide some framework for users who are less familiar with the rules. The parameters are designed to handle the majority of "usual" situations. To handle exceptional situations, ProVal still allows the import of accrual rates from other sources (e.g., from an Excel file).

Performing nondiscrimination tests in ProVal is a two step process:

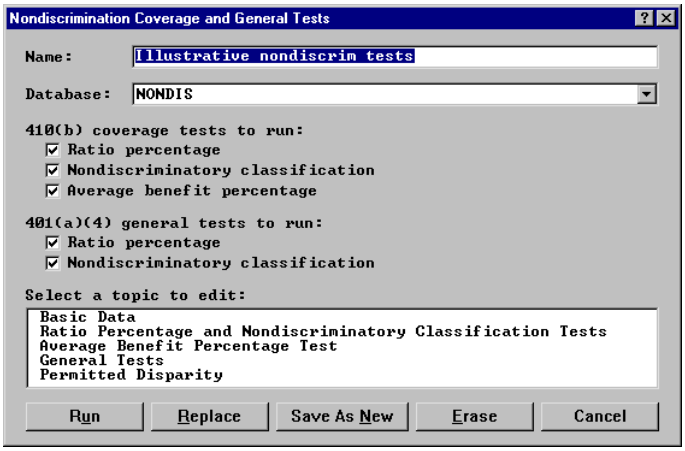


- **Accrual Rates**. A new tool that allows for the parameterized calculation of unadjusted accrual rates (i.e., before adjustment for permitted disparity) for defined benefit and aggregate defined benefit/defined contribution plans under the annual, accrued-to-date, and projected calculation methods on either a benefits or contributions basis. In addition, permitted disparity information is calculated.

  The results are saved to a database for input into the Coverage and General Tests tool below.



- **Coverage and General Tests.** This is ProVal's existing nondiscrimination testing tool with a new option to adjust accrual rates for permitted disparity. The unadjusted accrual rates and permitted disparity information calculated in the Accrual Rates tool above are inputs into this tool.



For details, see Help articles on these tools (Help > Help Topics > Command Reference > Tools Menu).

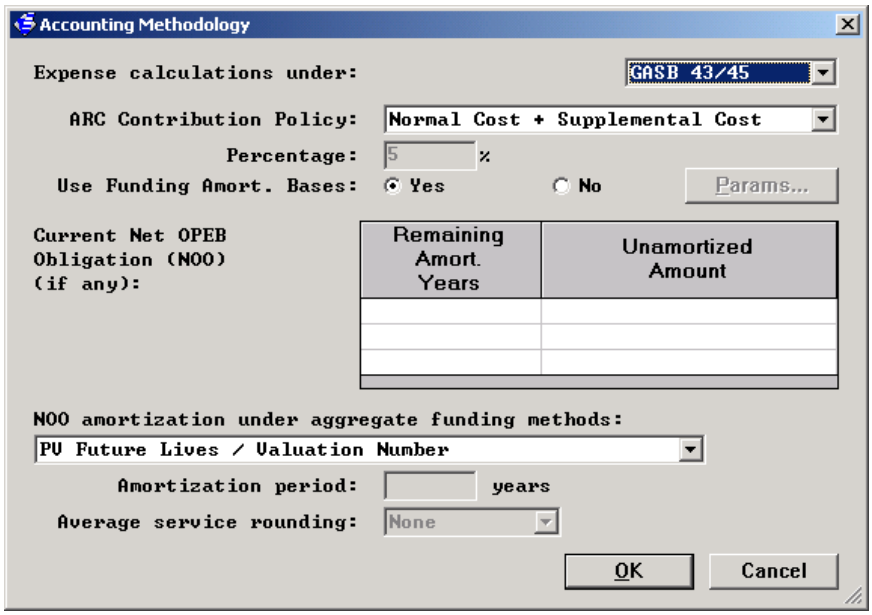
GASB for OPEB Plans

In 2004, the GASB issued:

- Statement 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, and
- Statement 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions

requiring Public Plans and Employers to disclose their OPEB obligations beginning after December 15, 2005. GASB 43/45 reporting is comparable to public plan pension reporting under GASB 25/27, *not* FAS 106. The same liabilities are used for funding and GASB accounting, so only a funding valuation is (generally) necessary.

The key reporting elements that are within the scope of ProVal are the Annual Required Contribution (ARC) and the annual OPEB cost. These calculations are parameterized in the *Accounting Methodology* topic of the Asset & Funding Policy (choose **Expense calculations under** "GASB 43/45".).



- The ARC (for details, see the exhibit on page 10) is computed per the selected **ARC Contribution Policy**, where four (4) options are currently available. Note that this can differ from the employer's **Contribution Policy** as specified in the *Contribution Policy* topic, which for example, might include additional contributions to pay off any Net OPEB Obligation.

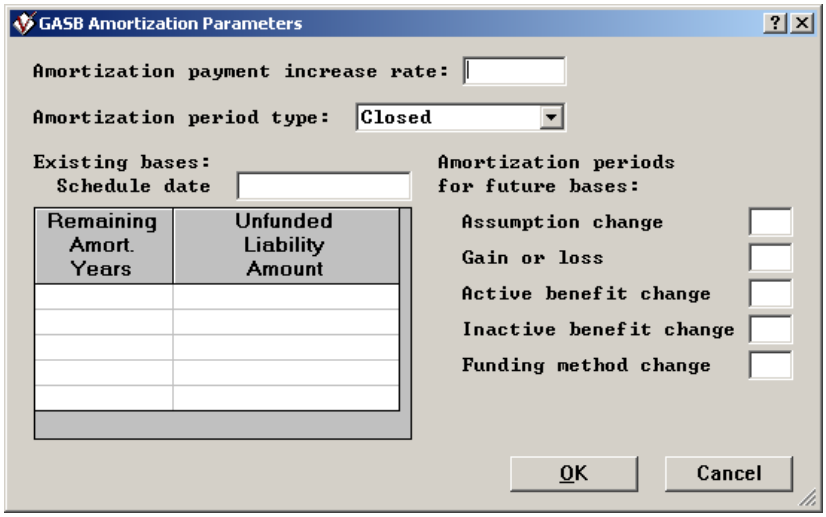
  The underlying actuarial cost method (for both the ARC contribution policy and employer's contribution policy) is specified in the *Contribution Policy* topic. ProVal supports five of GASB's six acceptable methods. The following GASB names correspond with ProVal's Cost Methods.

GASB name	ProVal Cost Method
Entry age	Entry Age
Frozen entry age	Frozen Entry Age (FIL)
Attained age	<not supported>
Frozen attained age	FIL with PUC
Projected Unit Credit (or Unprojected Unit Credit if past service benefits are not affected by future salary levels)	Projected Unit Credit (PUC)
Aggregate	Aggregate

- The annual OPEB cost (for details, see the exhibit on page 10) is generally equal to the ARC. However, if employer contributions have historically differed from the ARC (current year differences aren't reflected until the following year), a Net OPEB Obligation (NOO) is established. The annual OPEB cost is then adjusted by interest on the NOO and an amortization of the NOO. In a forecast, the Net OPEB Obligation reflects differences, if any, between the ARC contribution policy and the employer's contribution policy.

All GASB Asset & Funding Policies now require that funding amortization parameters be set in the *Funding Amortization Policy* topic. (Previously they were only required for "Normal Cost + Supplemental Cost" contribution policies.) The amortization information is necessary to calculate an appropriate Annual OPEB Cost.

If a "Normal Cost + Supplemental Cost" ARC contribution policy is selected in the GASB *Accounting Methodology* topic, you may elect to **Use Funding Amort. Bases**, or enter different GASB amortization parameters (click the **Params…** button to see the dialog shown below). This determines the ARC supplemental cost and the Net OPEB Obligation amortization. The ability to specify separate GASB amortization parameters has also been added to Public Pension mode.



Information about any existing Net OPEB Obligation (NOO) is also specified as part of the GASB *Accounting Methodology* topic. If a **Current Net OPEB Obligation (NOO)** exists, it is entered along with the (preliminary) remaining amortization period(s). The NOO amortization period may be overridden if an open amortization period is used for ARC supplemental cost or if an aggregate actuarial cost method is used (see below). Per GASB 45, the annual OPEB cost is adjusted by the discounted present value of the Net OPEB Obligation at the beginning of the year using the same amortization methodology used in determining the ARC for that year.

The accounting methodology dialog also controls the **NOO amortization under aggregate funding methods.** (That is, if the actuarial cost method specified under the *Contribution Policy* topic is aggregate.) The amortization is equal to the NOO divided by either:

1) The ratio of the present value of future lives to the number of valuation actives (with no interest adjustment), which produces the same effective amortization as the FIL level dollar method.

2) An annuity factor for a period equal to the FASB definition of expected average service to retirement. (An "accounting" valuation is required to calculate this amortization period, and rounding options are provided.)

3) An annuity factor with a user-specified amortization period.

Finally, Valuation Set and Deterministic Forecast Exhibits have been added that detail the Annual Required Contribution (new in the Public Pension mode as well) and the development of the Net OPEB Obligation, including any adjustments required to meet the GASB minimum amortization requirements.

GASB 43/45: Development of ARC (Normal Cost + Supplemental Cost)

1. Assumptions	
(a) Funding interest rate	8.00%
(b) Amortization payment increase rate	0.00%
2. Preliminary Annual Required Contribution (ARC)	
(a) Normal cost	121,990
(b) Term cost	N/A
(c) Administrative expenses	0
(d) Supplemental cost	
(i) Funding liability	3,811,274
(ii) Actuarial assets	2,000,000
(iii) Outstanding Balance: (i)-(ii)	1,811,274
(iv) Years to run	5
(v) Supplemental cost	420,042
(e) BOY contribution: (a)+(b)+(c)+(d)(v)	542,032
(f) Contribution timing	
(i) Fraction to year end: 0.5000	
(ii) Compound interest to year end at rate (1)(a)	21,264
(g) Preliminary ARC: (e)+(f)(ii), not less than 0	$563,296
3. Minimum Annual Required Contribution	
(a) Normal Cost	121,990
(b) Term cost	N/A
(c) Administrative expenses	0
(d) Unfunded Liability	1,811,274
(e) Minimum supplemental cost	148,973
(f) Minimum ARC: (a)+(b)+(c)+(e), not less than 0	270,963
(g) Contribution timing	
(i) Fraction to year end: 0.5000	
(ii) Compound interest to year end at rate (1)(a)	10,630
(h) Minimum ARC adjusted for timing: (f)+(g)(ii)	281,593
4. Annual Required Contribution: max of (2)(g) and (3)(h)	$563,296

GASB 45: Development of Annual OPEB Cost and Net OPEB Obligation (NOO)

1. Funding interest rate	8.00%
2. Net OPEB Obligation (NOO) as of January 1, 2000	$0
3. Annual Required Contribution (ARC)	563,296
4. Interest on NOO at rate (1) to December 31, 2000	0
5. Amortization of Net OPEB Obligation	0
6. Annual OPEB Cost: (3)+(4)-(5)	$563,296
7. Annual Employer contribution	563,296
8. Change in Net OPEB Obligation: (6)-(7)	$0
9. Net OPEB Obligation as of December 31, 2000: (2)+(8)	$0