



## Financial Ratios—The Basics and Beyond What Ratio Benchmarks Indicate Solvency?

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# Overview

- ◆ What is AVP's perspective?
- ◆ Objectives of setting financial goals
- ◆ Defining success and solvency
- ◆ The CCRC complication
- ◆ Empirical data
- ◆ Observations

# AVP's Perspective

- ◆ Actuaries, accountants, and statisticians
- ◆ Members of firm chair professional groups that
  - ✓ Developed CCRC audit guidelines
  - ✓ Actuarial standards of practice #3
- ◆ Research on continuing care financials
- ◆ Opportunity to evaluate many CCRCs
  - ✓ More than 100 annually
  - ✓ Nearly 500 during past 20 years



# Primary Objective

- ◆ Adjust fees to meet predetermined and quantifiable financial goals
  - ✓ Many factors/issues relate/affect the “success” of a CCRC
  - ✓ This presentation only concerned with financial factors/issues

# Possible Financial Goals

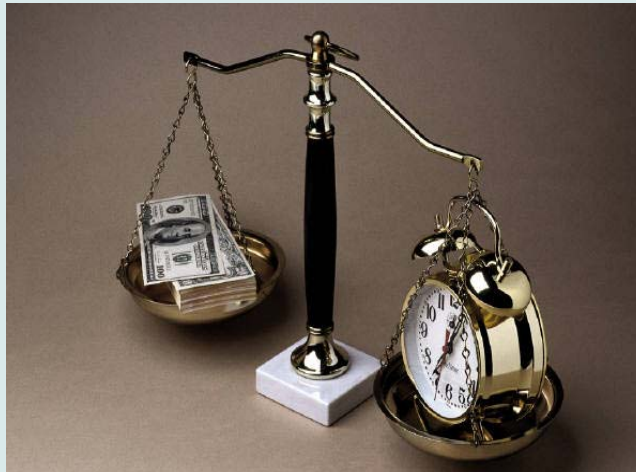
- ◆ Profitability or margin ratios
  - ✓ Net operating income margin
  - ✓ Operating ratio
- ◆ Other financial ratios
  - ✓ Debt service
  - ✓ Days cash-on-hand
  - ✓ Audience suggestions
- ◆ Satisfactory actuarial balance

# Defining Financial Success

- ◆ Able to pay monthly expenses
- ◆ No defaults of bond covenants
- ◆ Favorable credit rating
- ◆ Building an “endowment”
- ◆ Meeting certain financial ratio targets

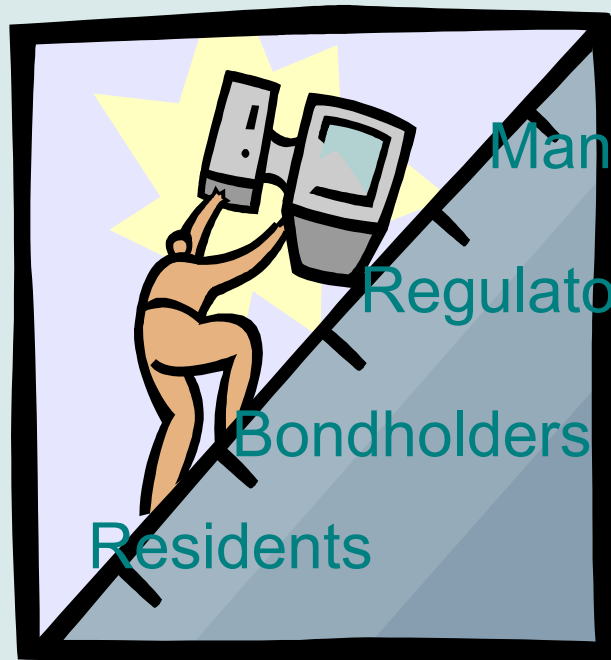
# Defining Financial Solvency

- ◆ Satisfactory actuarial balance
  - ✓ Fully funded
  - ✓ Positive new entrant fee margin
  - ✓ Projected increasing reserve balances



# Perspective for Success or Solvency

Solvency



BOARD

Management

Regulators

Bondholders

Residents

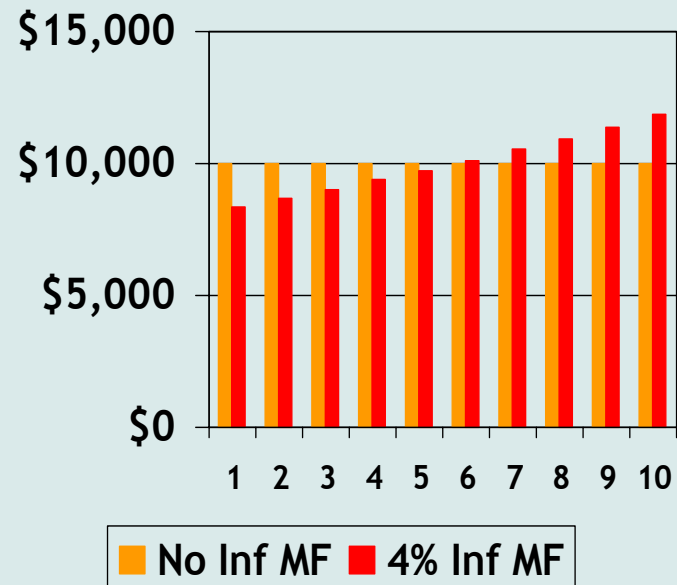
Success

*Crisis or Turn-around*

# The CCRC Complication: Entry Fees

- ◆ If fee-for-service structure, i.e., rental, then financial analysis is straightforward
- ◆ But if charge entry fees, which are a prepayment of monthly fees, financial analysis is much more complicated

**\$100,000 Entry Fee  
equals \$(?) Monthly  
Fee**



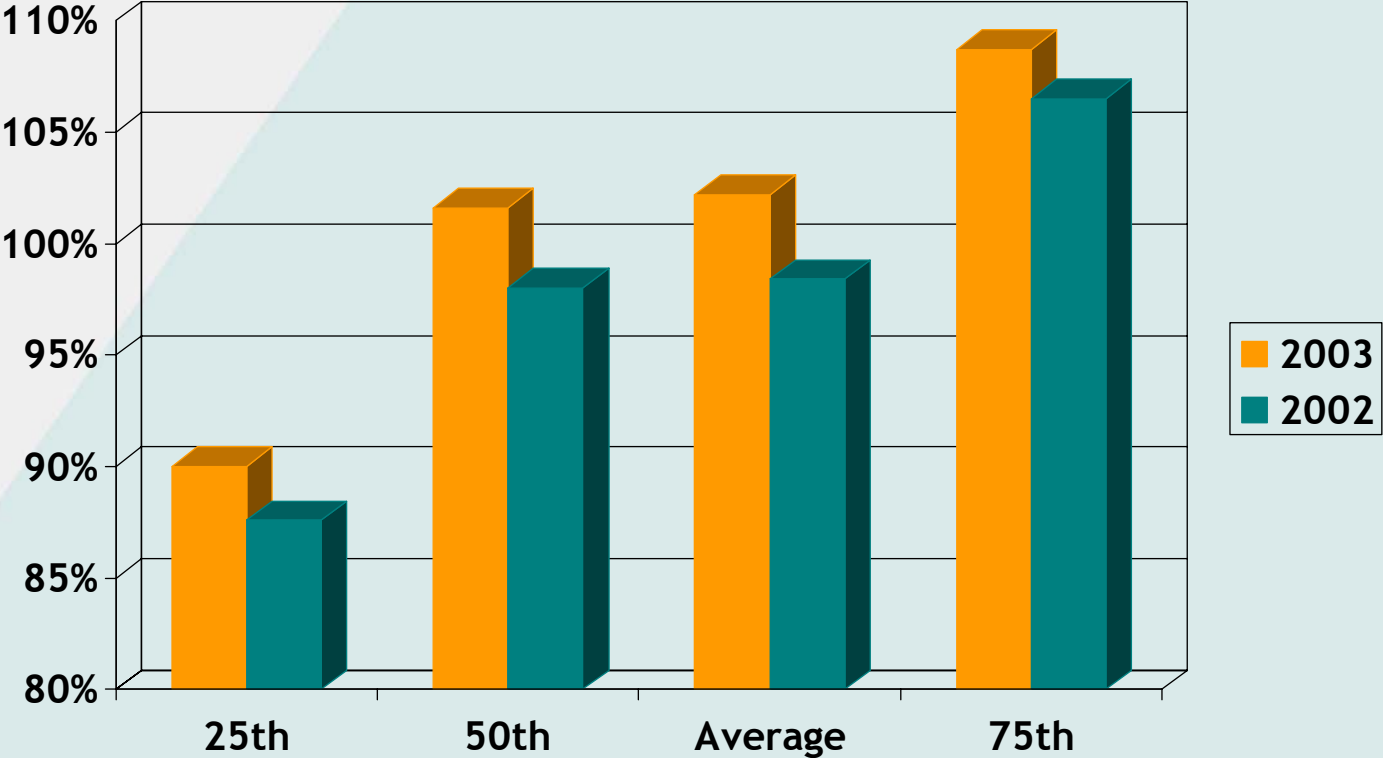
# Empirical Analysis: Description of Database

- ◆ Source of financial statistics
  - ✓ Selected client actuarial studies
  - ✓ Most are predominately Type A contracts
  - ✓ Single-site or stand-alone financials if part of multi-
  - ✓ 53 sites in 2003
  - ✓ Not necessarily representative of the industry

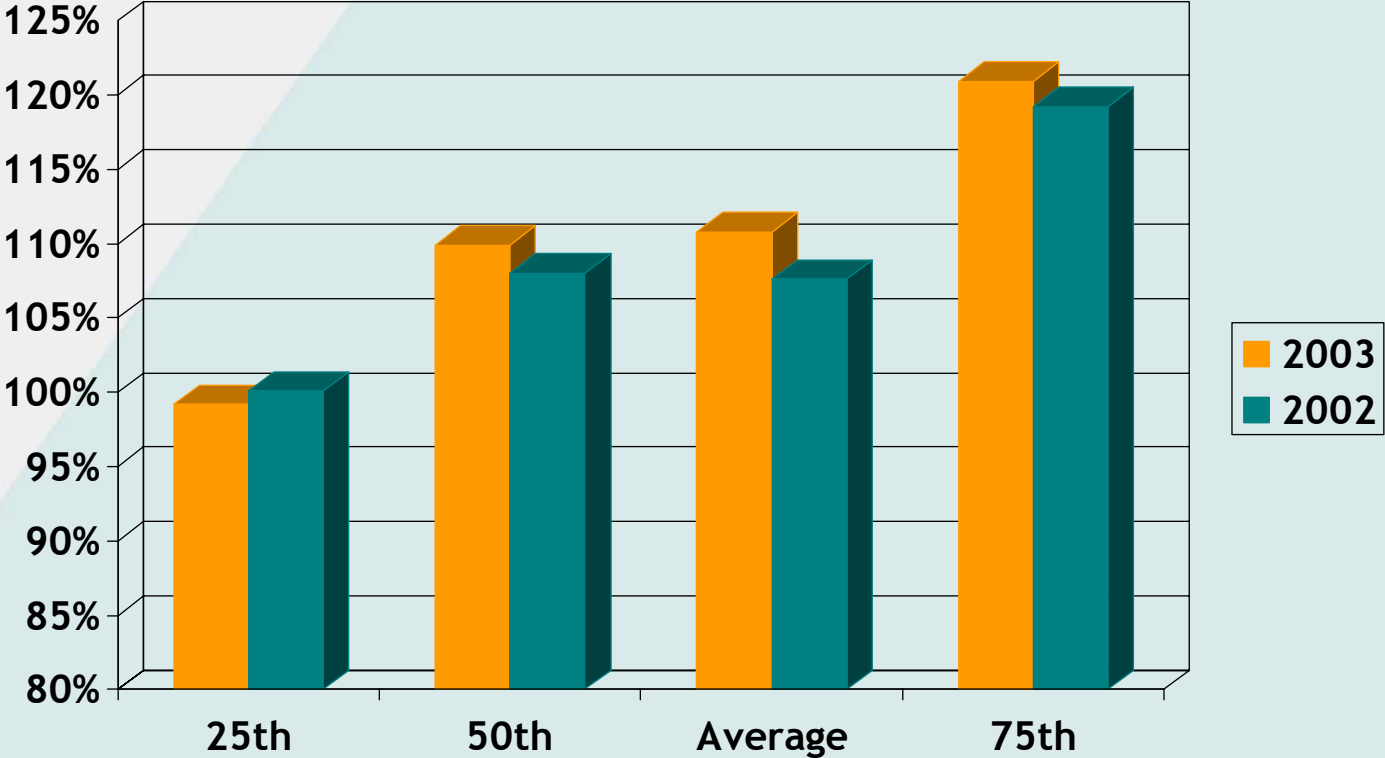
# Empirical Analysis (Medians)

- ◆ Solvency measures
  - ✓ Funded status
  - ✓ Funded status adjusted for new entrant surplus
- ◆ De facto success measures
  - ✓ Net operating income margin (adjusted and not)
  - ✓ Net operating income per unit
  - ✓ Debt service ratio
  - ✓ Days cash-on-hand ratio
  - ✓ 10-year reserve projection
- ◆ 16 CCAC ratios
  - ✓ Type A; CARF-CCAC 2002 Single-site Providers

# Funded Status Distribution



# Funded Status “Adjusted” Distribution



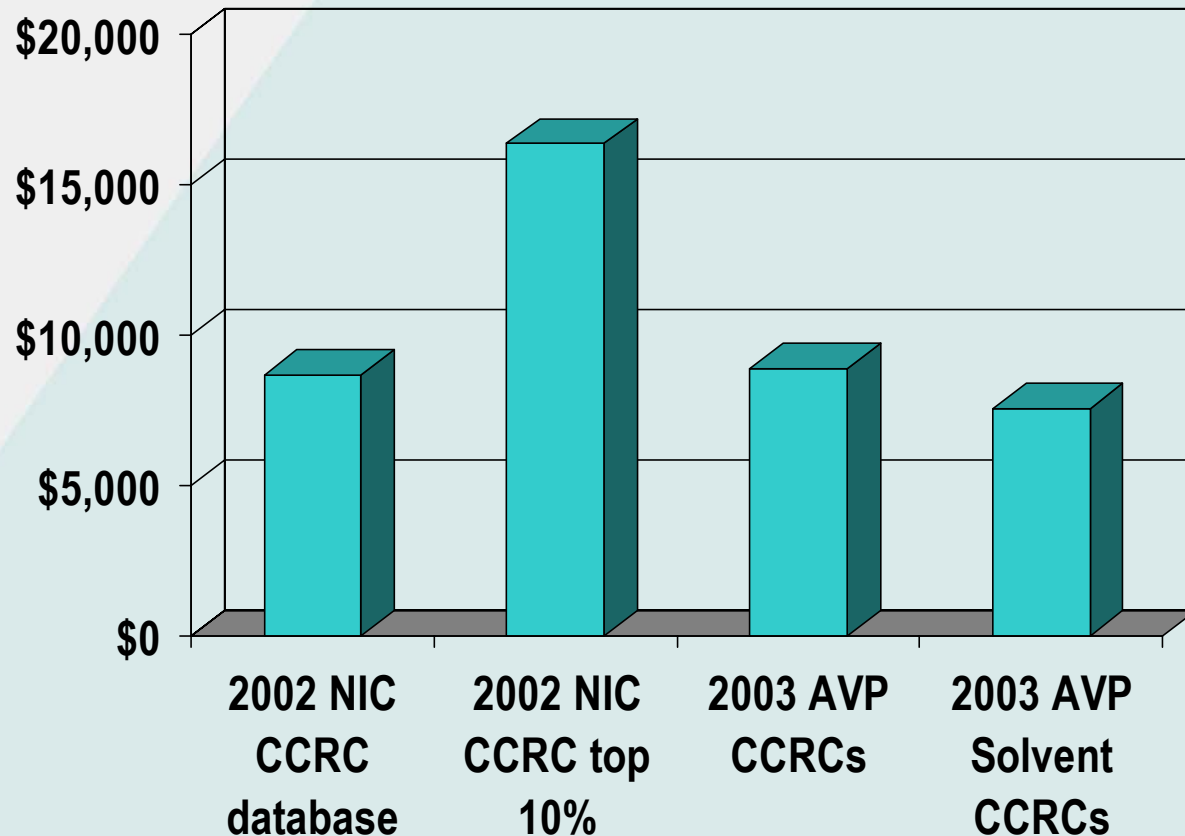
# 2003 Success Measure Medians

- ◆ All sites (53)
  - ✓ (2.4%) NOI margin; 21.6% NOI margin adjusted
  - ✓ (\$1,835) NOI per unit; \$8,888 NOI per unit adjusted (36 sites)
  - ✓ 1.60 debt service ratio
  - ✓ 471 days cash-on-hand
  - ✓ 2.44x ten-year reserve factor

# 2003 Success Measure Medians

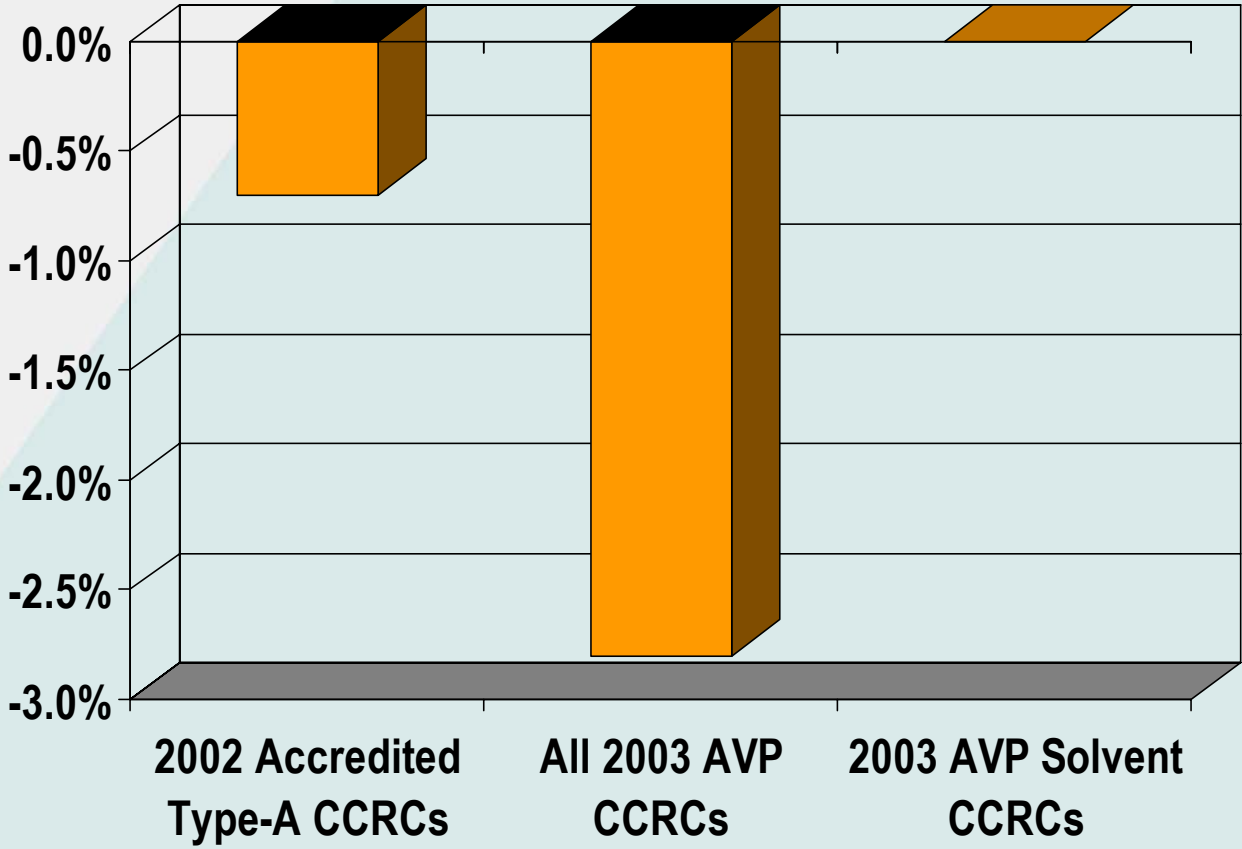
- ◆ Solvent sites only (30 based on 100% funded status)
  - ✓ (6.7%) NOI margin; 19.9% NOI margin adjusted
  - ✓ (\$1,845) NOI per unit; \$7,554 NOI per unit adjusted (22 sites)
  - ✓ 2.05 debt service ratio
  - ✓ 544 days cash-on-hand
  - ✓ 2.22x ten-year reserve factor

# NOI per Unit-Adjusted

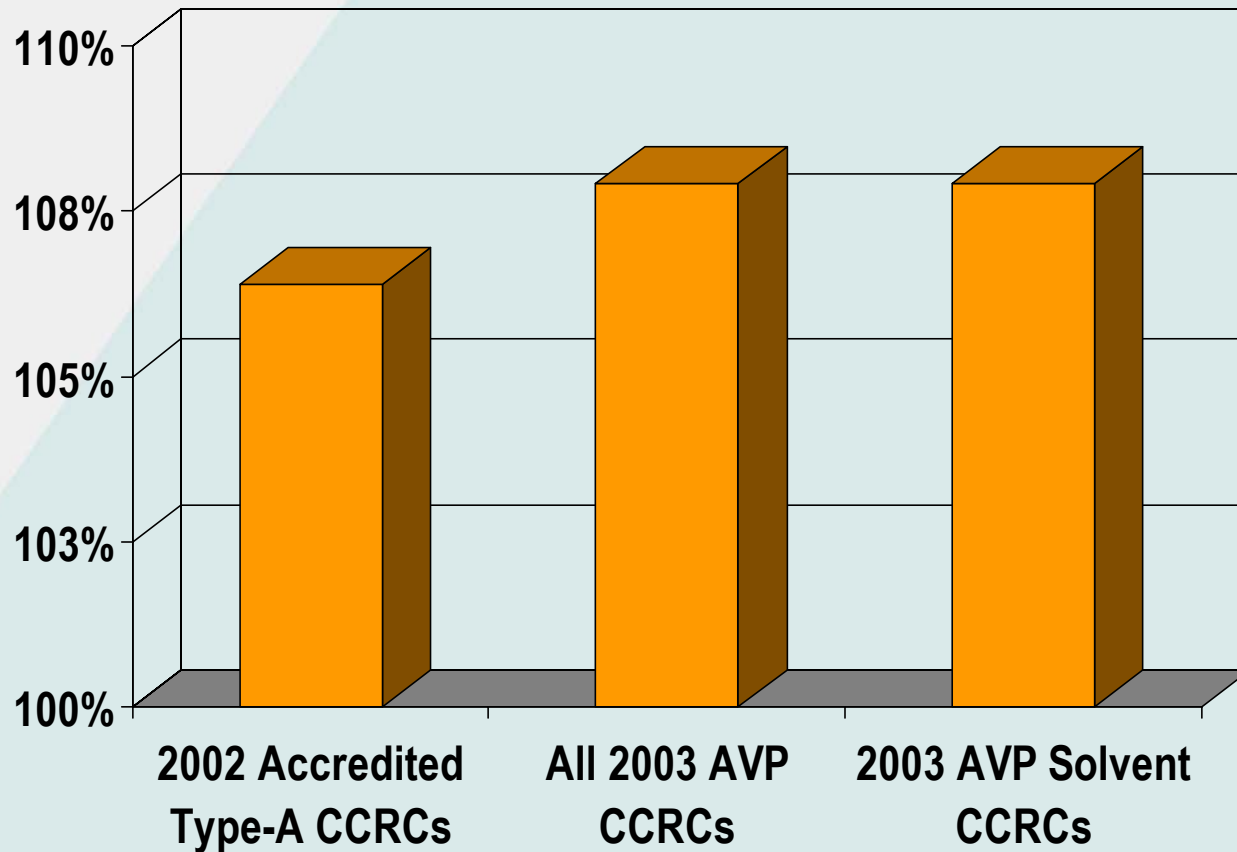


# Margin (Profitability) Ratios:

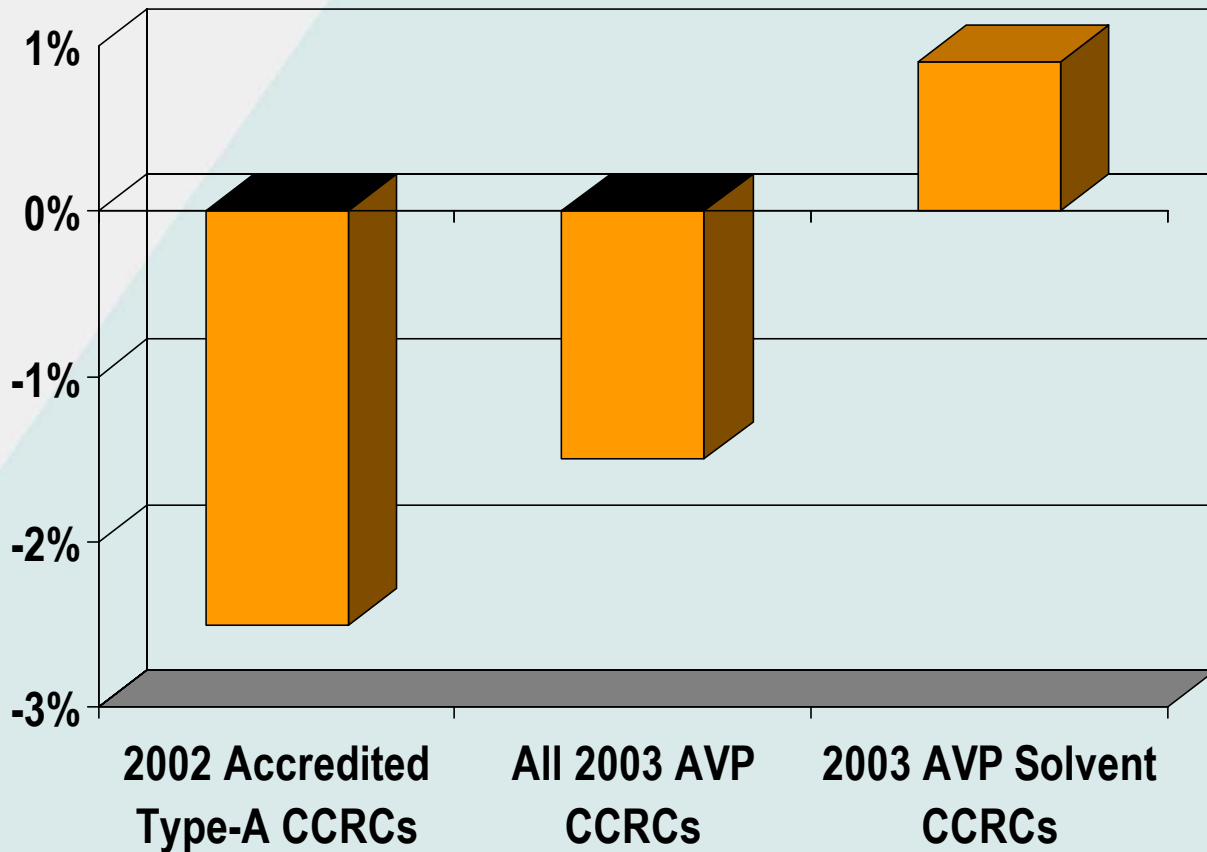
## Operating Margin Ratio



# Margin (Profitability) Ratios: Operating Ratio

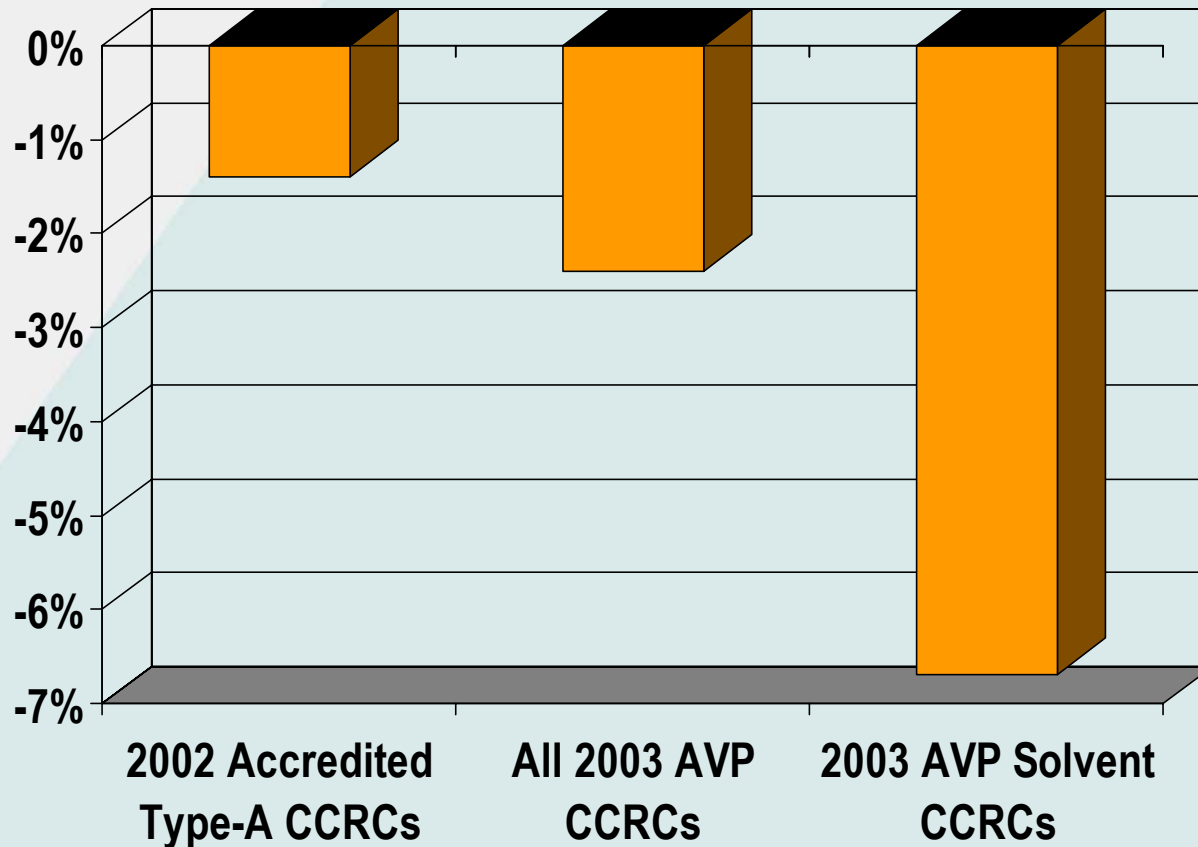


# Margin (Profitability) Ratios: Total Excess Margin

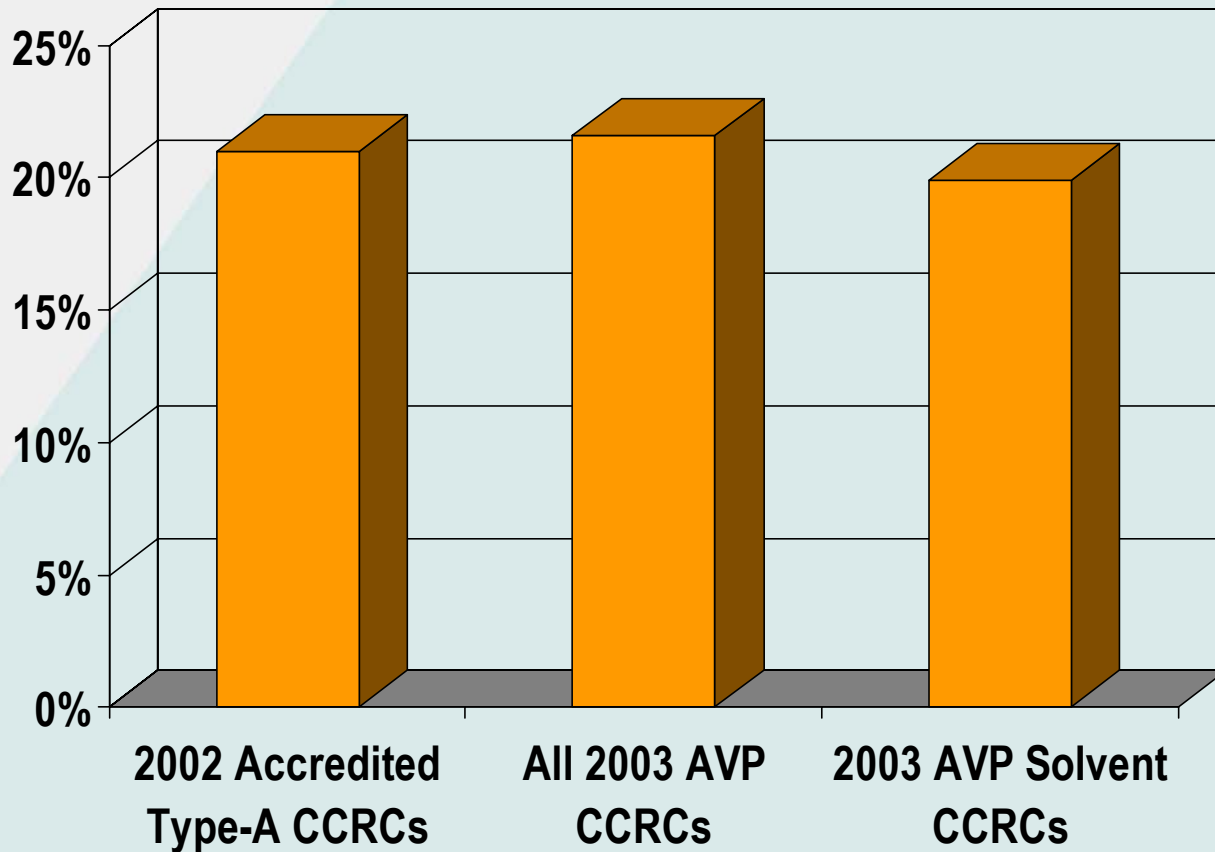


# Margin (Profitability) Ratios:

## Net Operating Margin Ratio

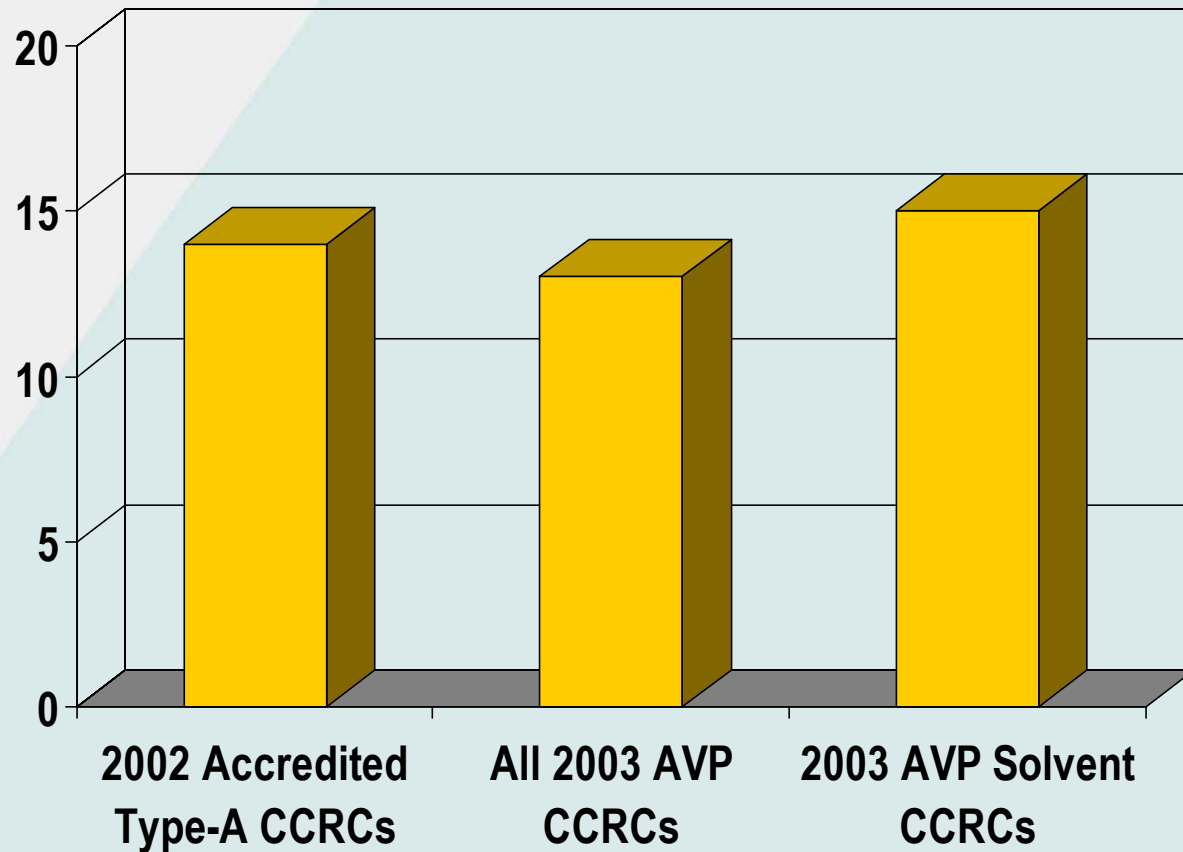


# Margin (Profitability) Ratios: Net Operating Margin Ratio-Adjusted

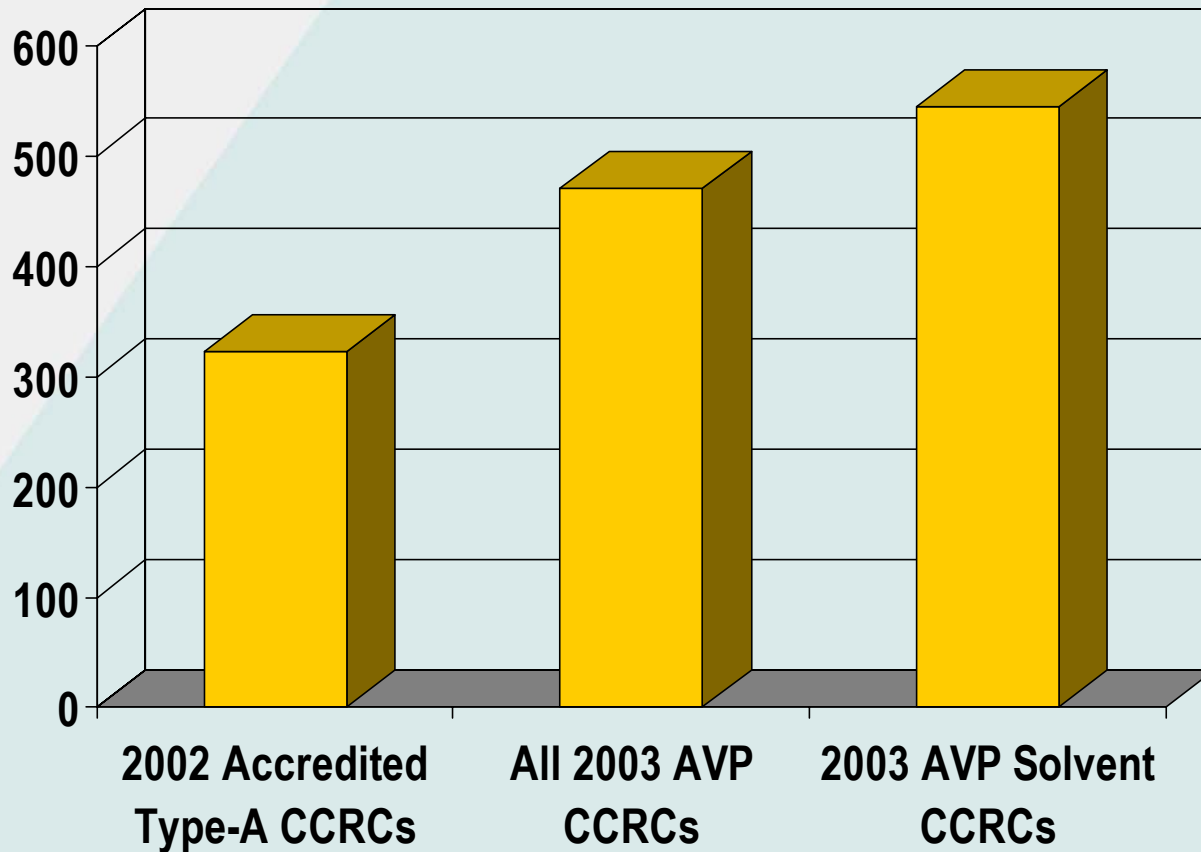


# Liquidity Ratios:

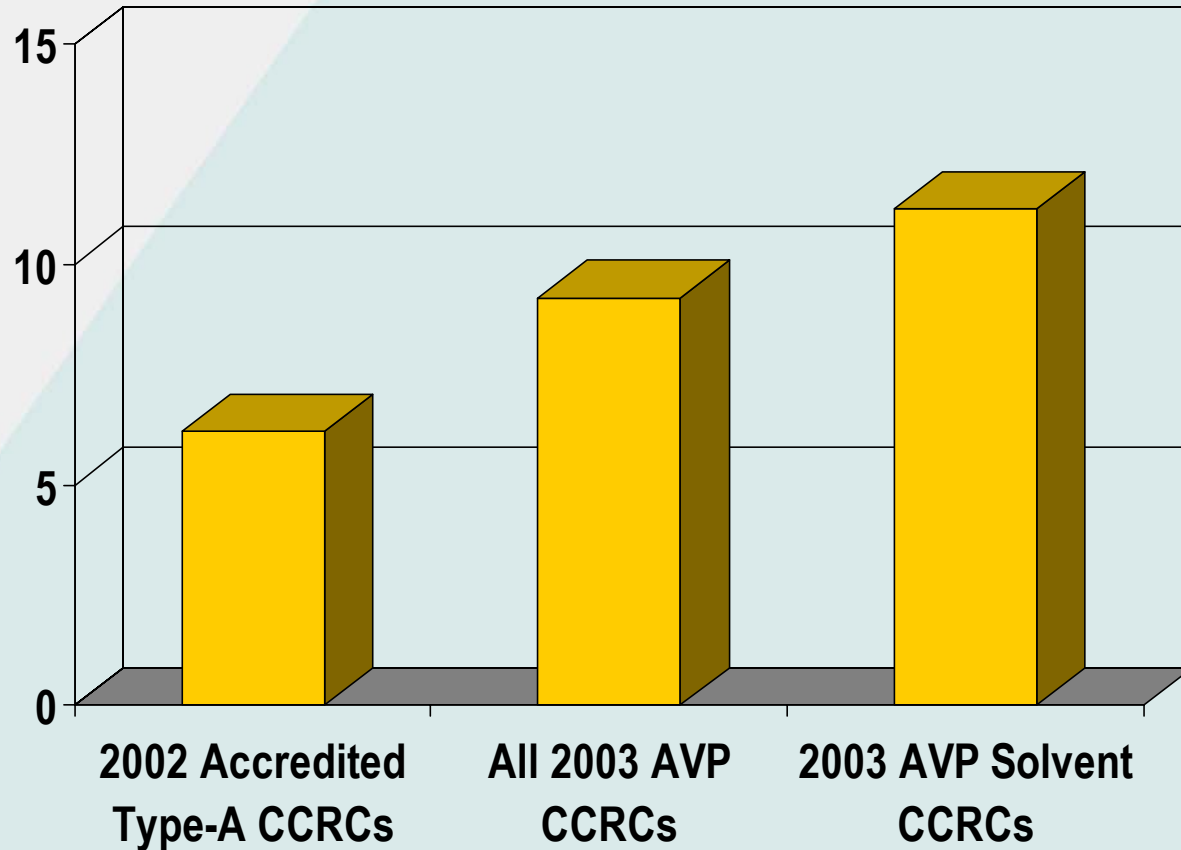
## Days in Accounts Receivable Ratio



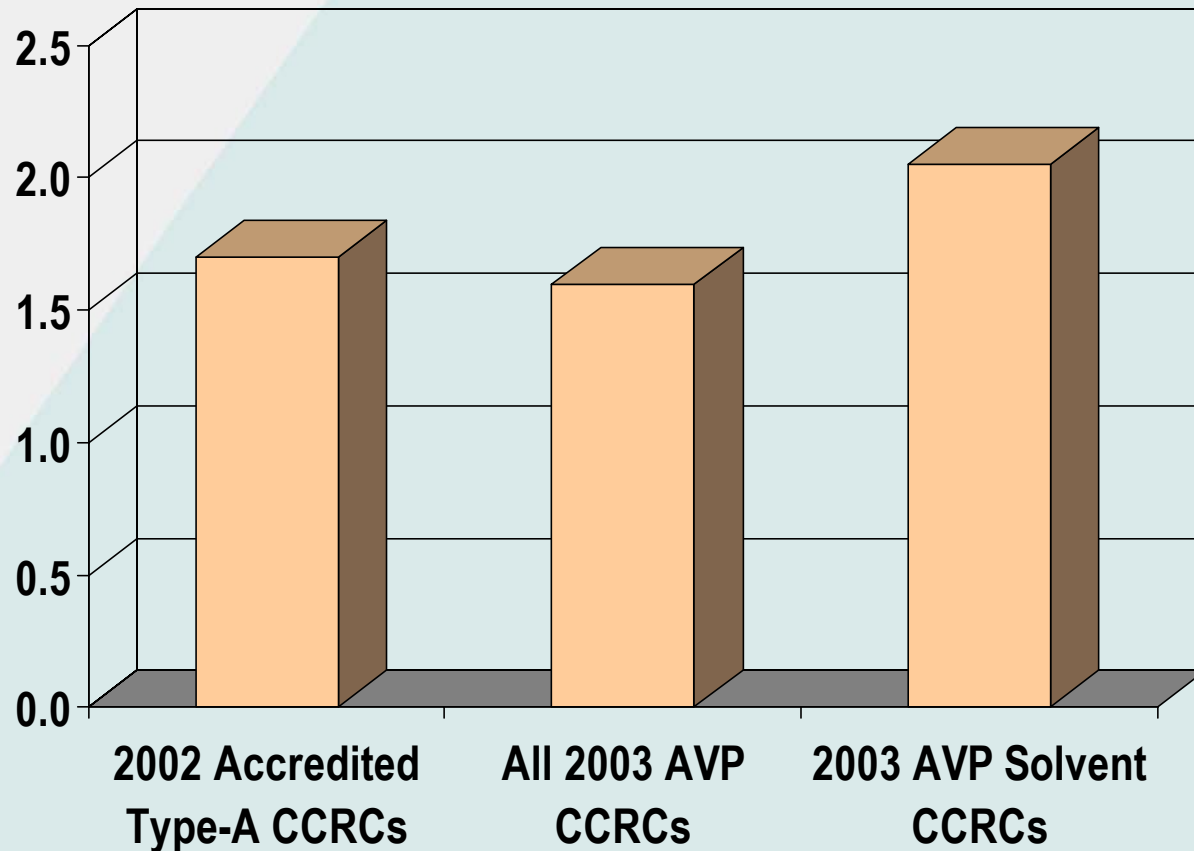
# Liquidity Ratios: Days Cash on Hand Ratio



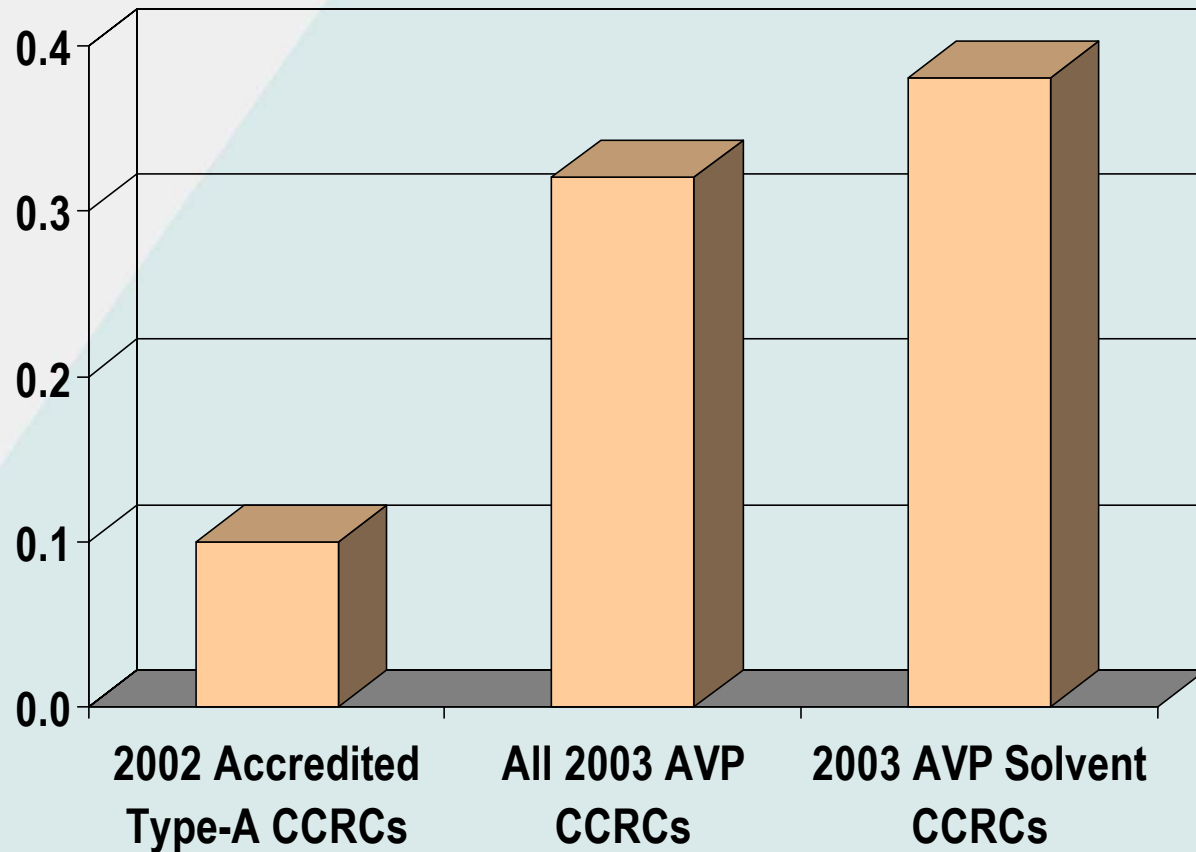
# Liquidity Ratios: Cushion Ratio



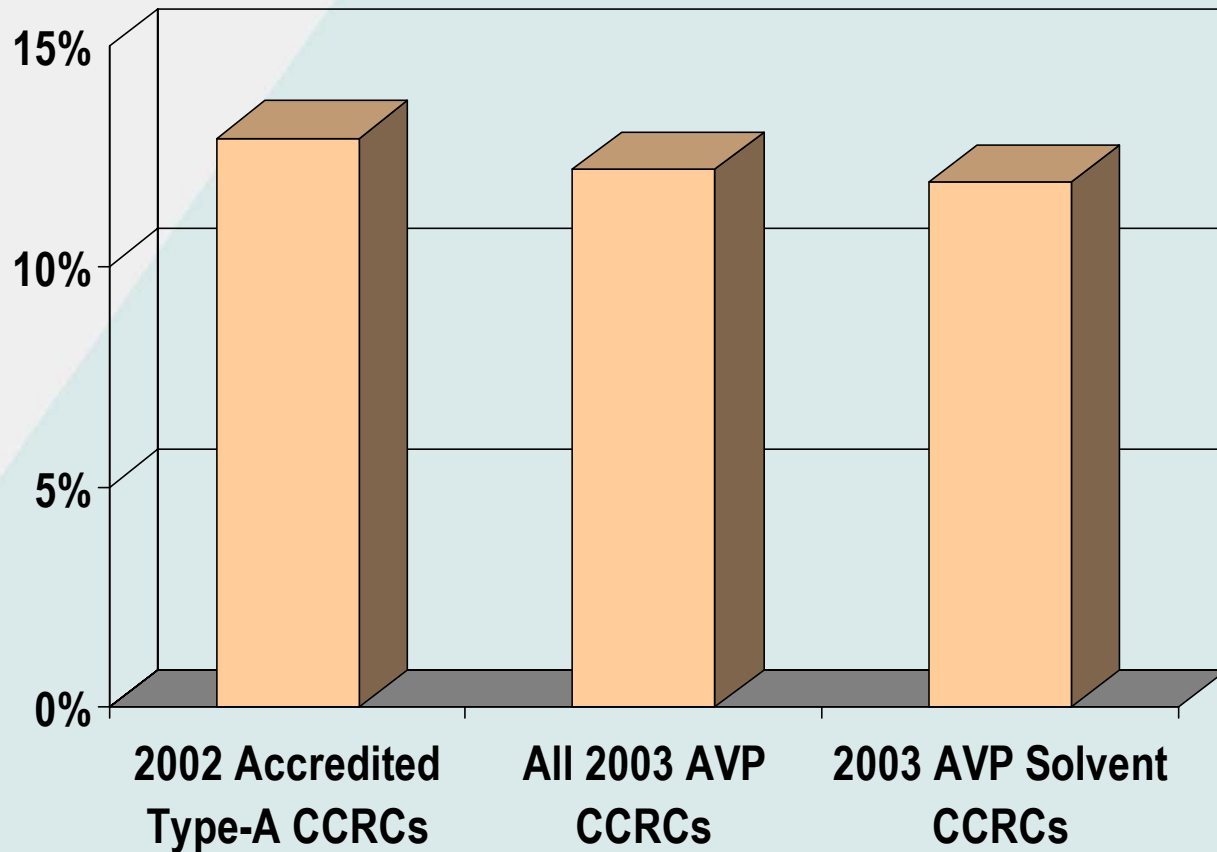
# Capital Structure Ratios: Debt Service Coverage Ratio



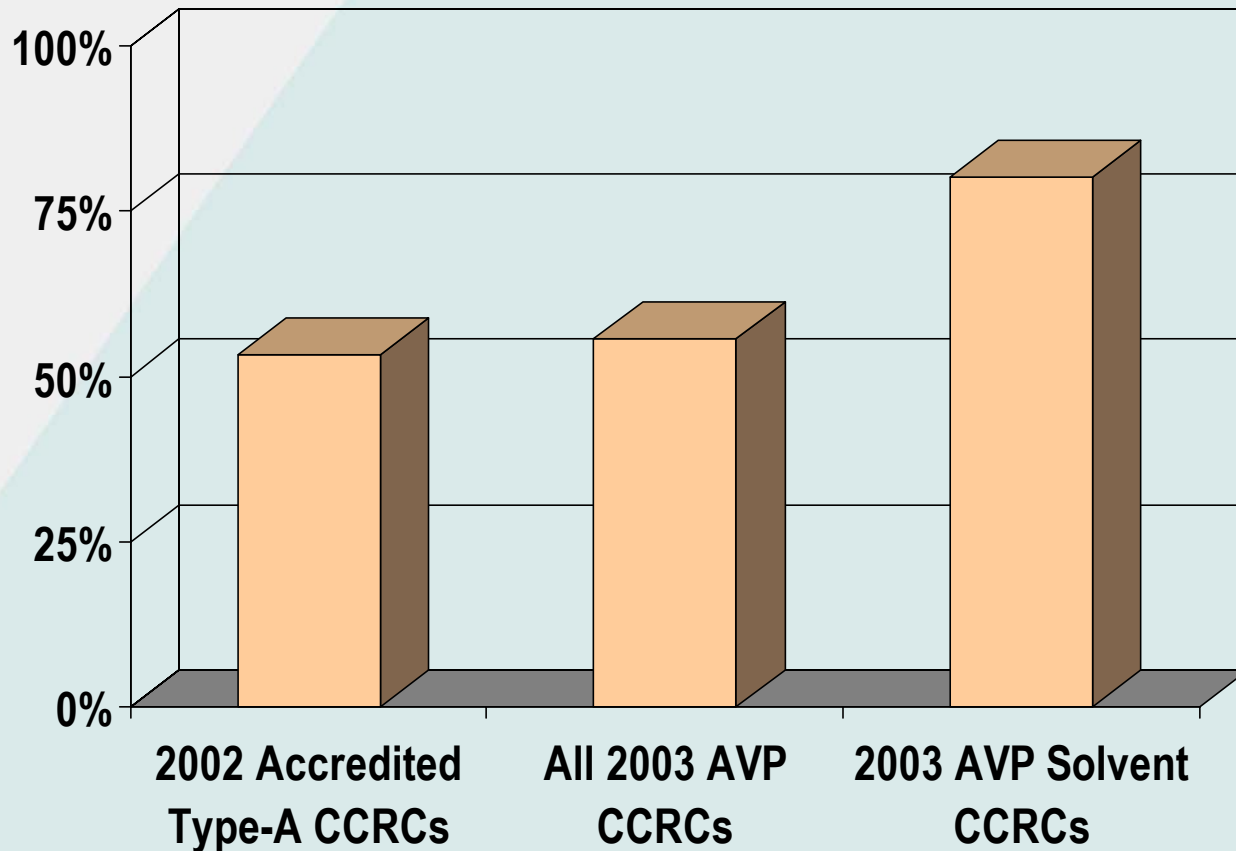
# Capital Structure Ratios: Debt Service Coverage Ratio-Revenue Basis



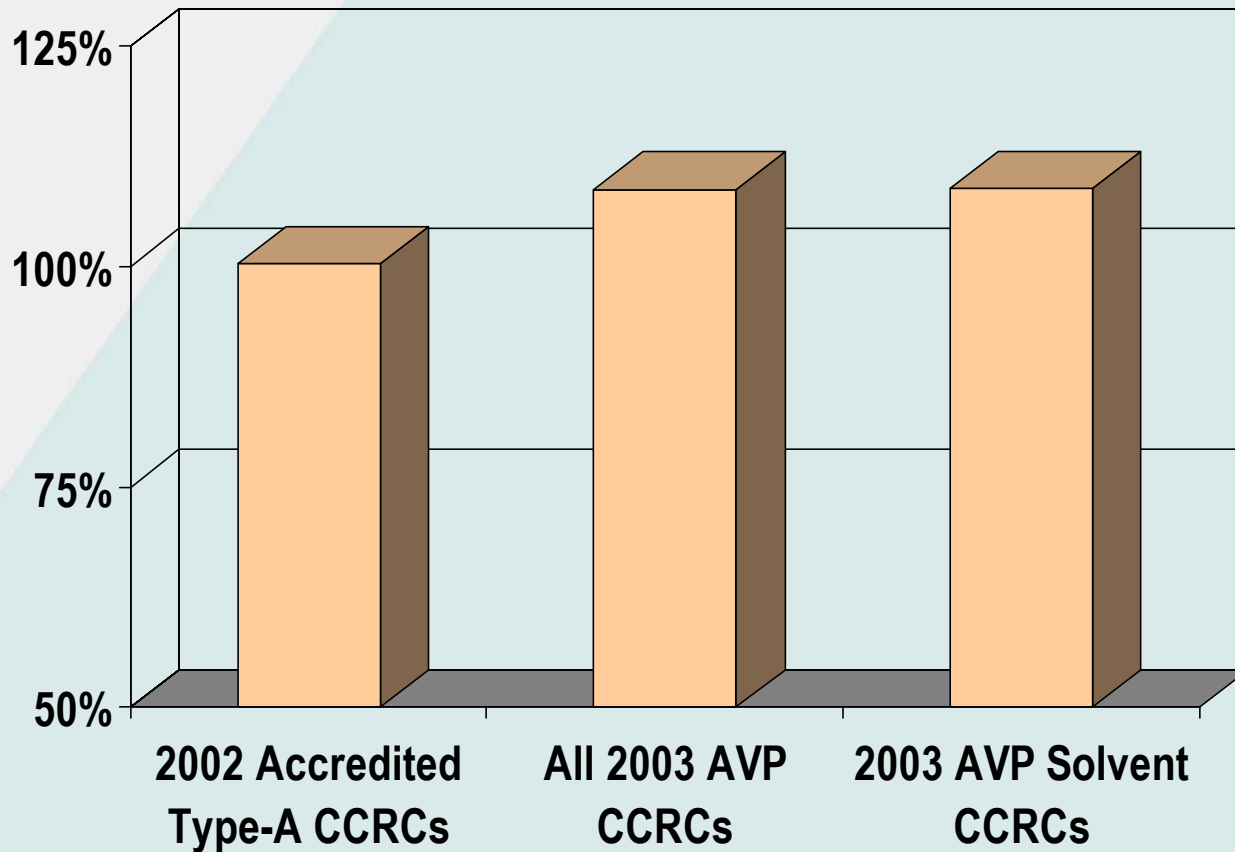
# Capital Structure Ratios: Debt Service as % of Total Operating Exps.



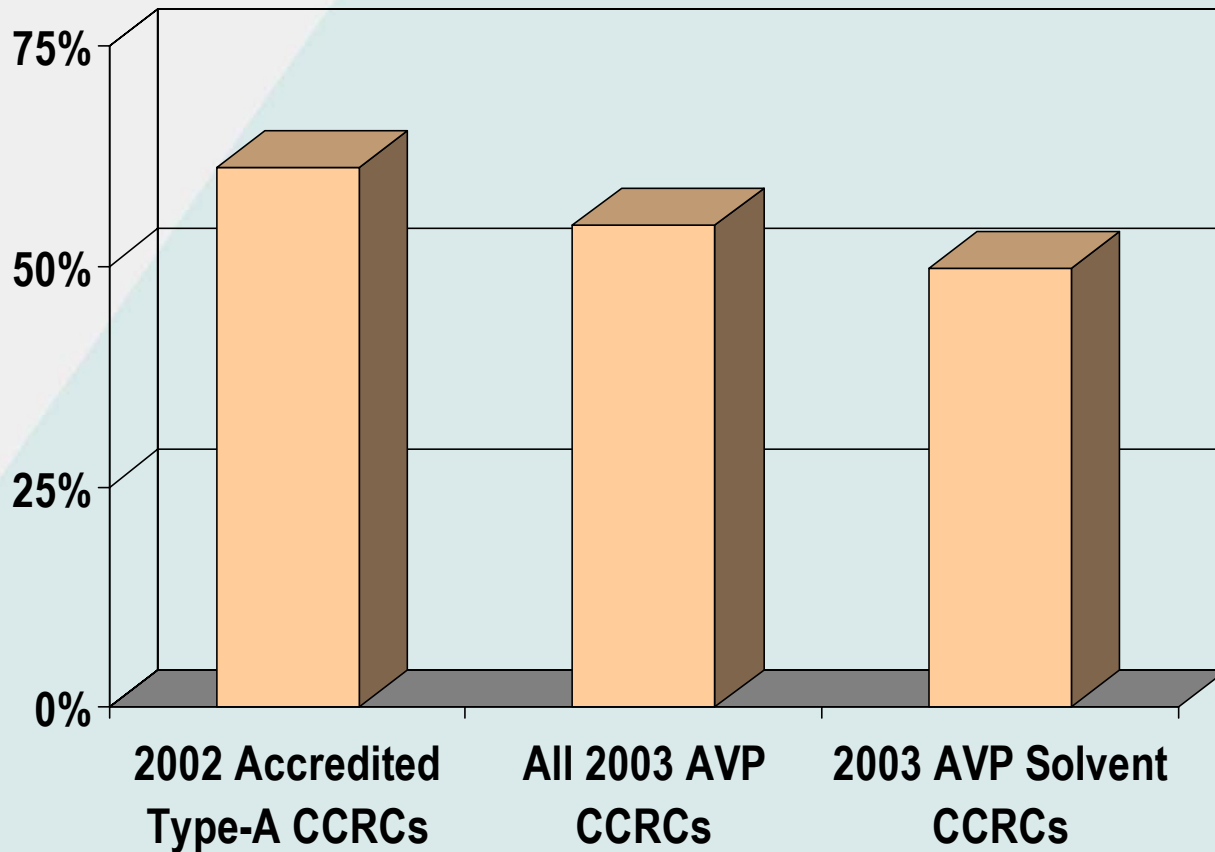
# Capital Structure Ratios: Cash and Investments to LTD Ratio



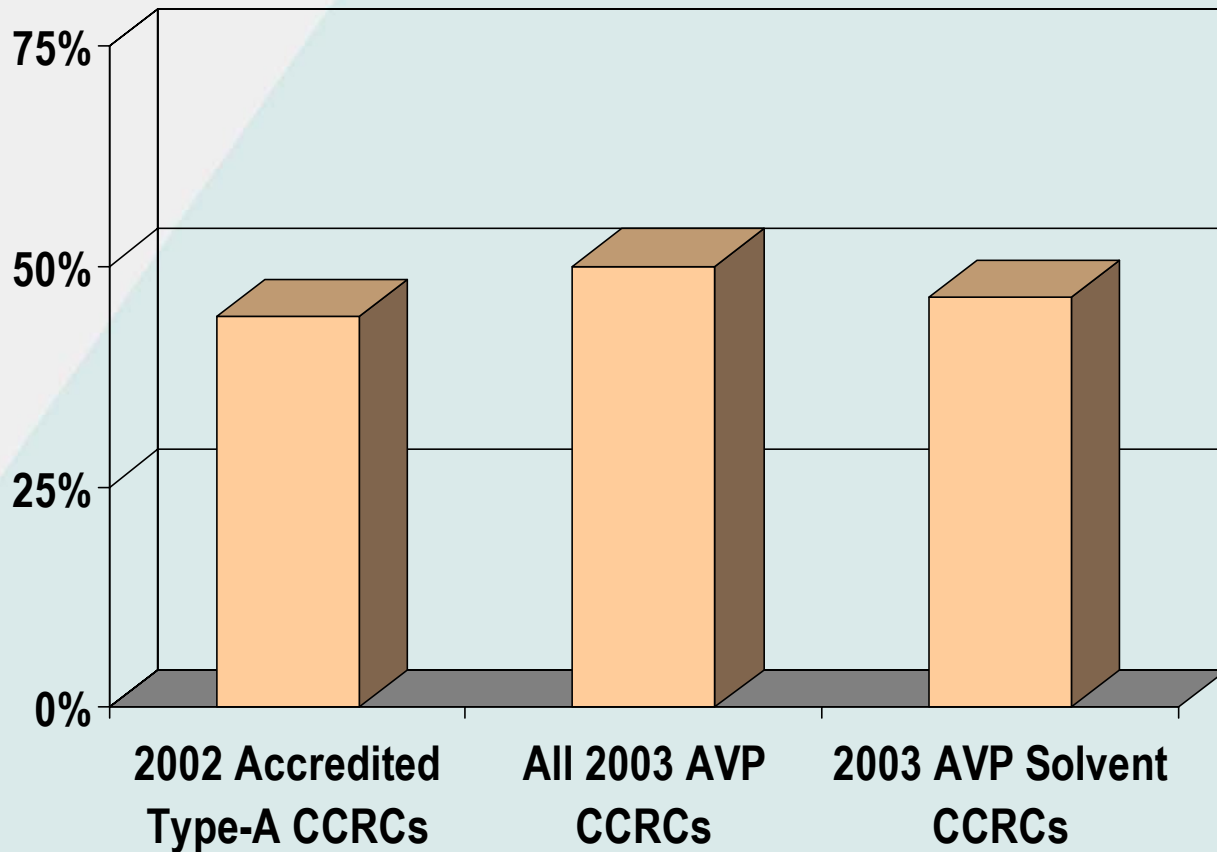
# Capital Structure Ratios: LTD as % of Total Capital Ratio



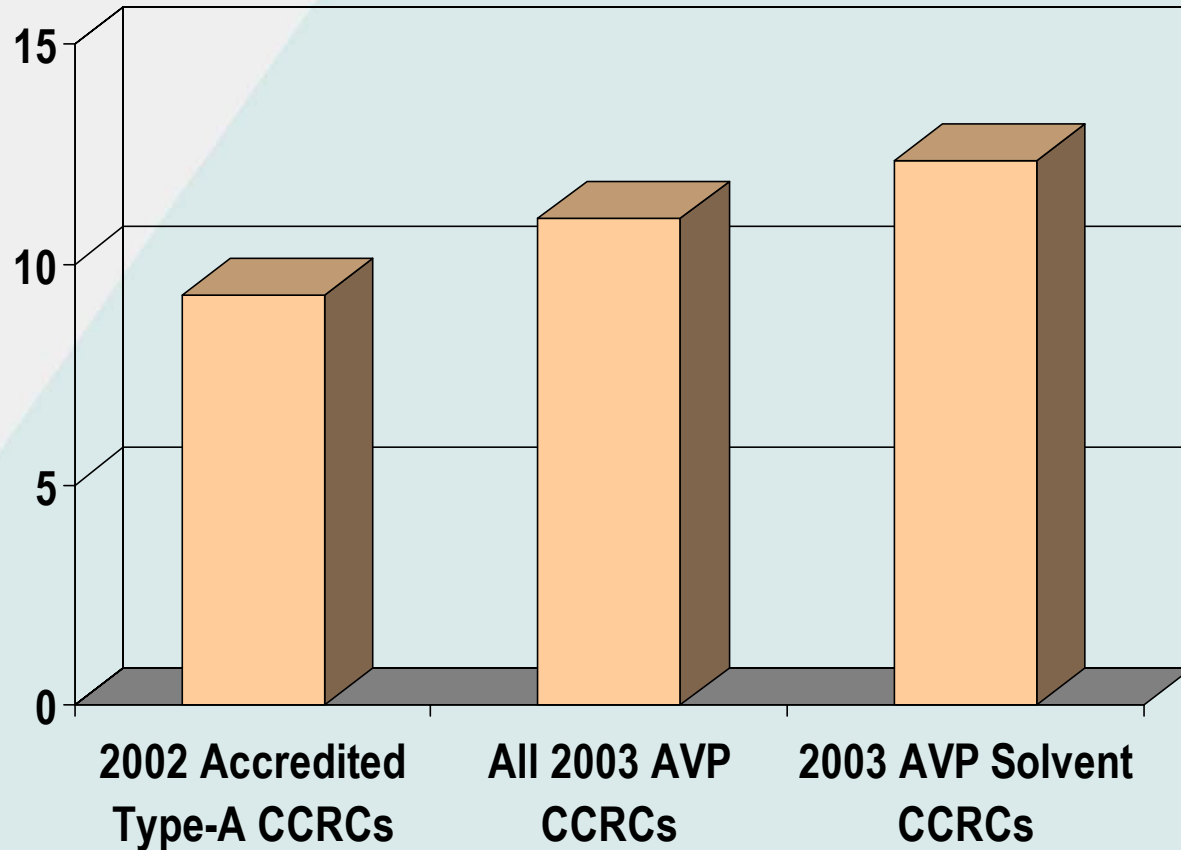
# Capital Structure Ratios: LTD as % of Total Capital Ratio-Adjusted



# Capital Structure Ratios: LTD to Total Assets Ratio



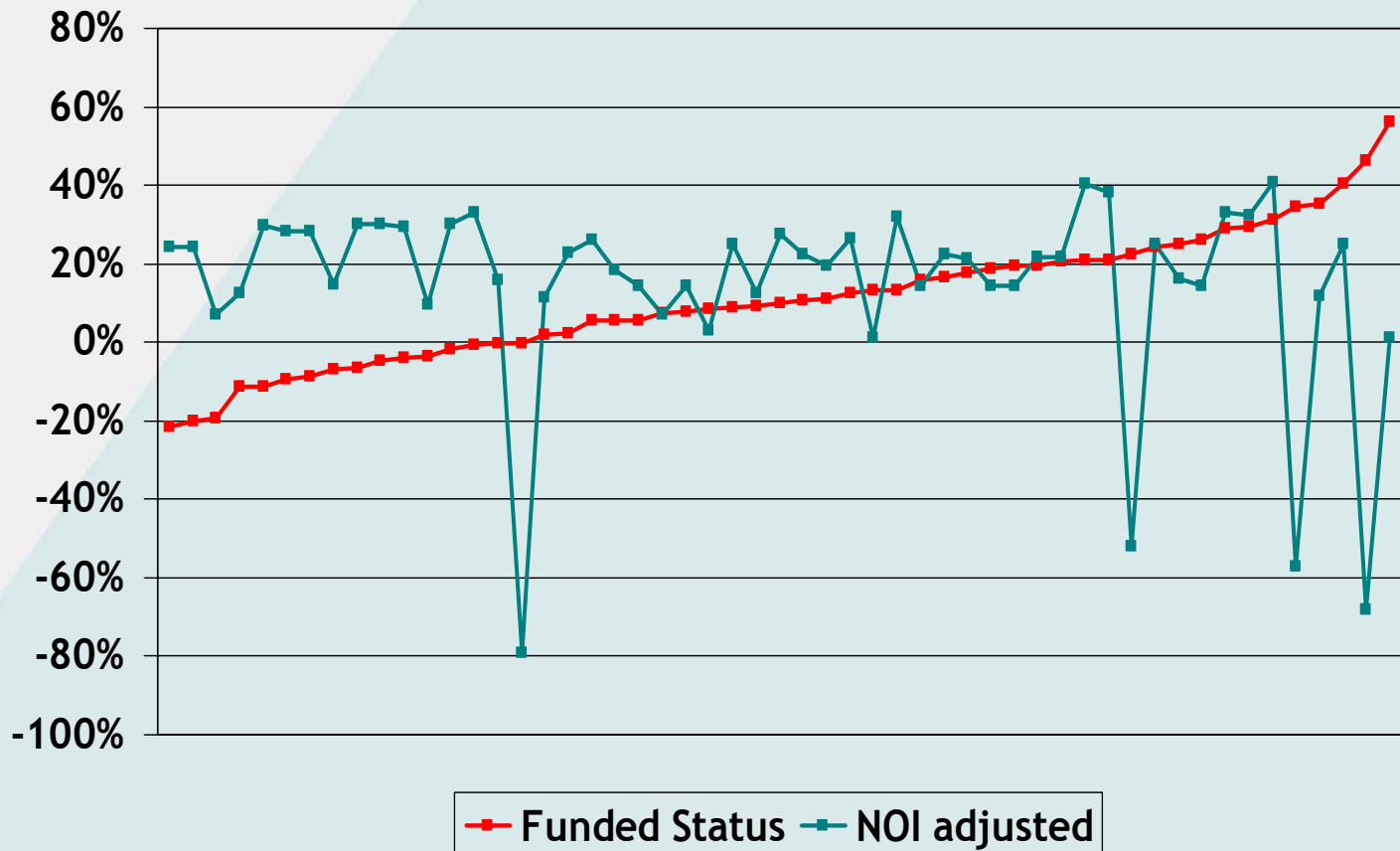
# Capital Structure Ratios: Average Age of Facility Ratio



# Experimental Design

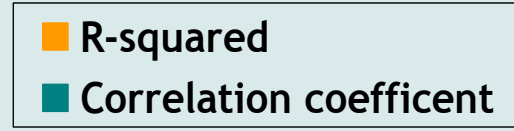
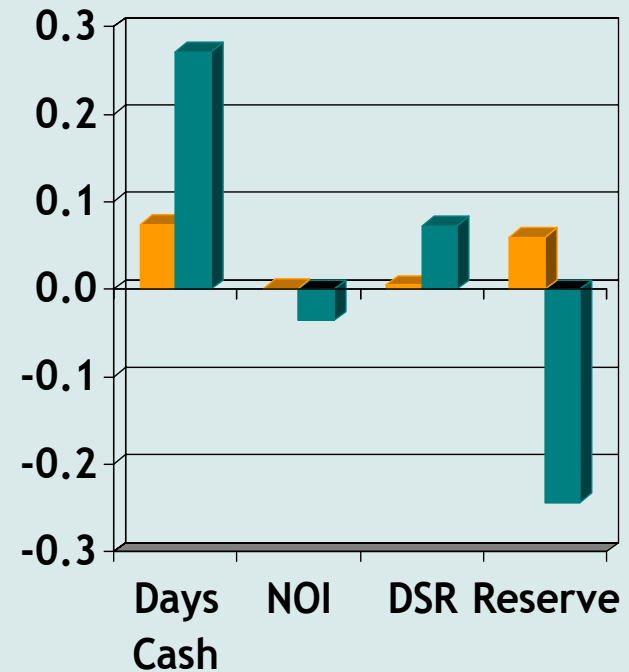
- ◆ Hypothesis
  - ✓ Is solvency related to certain financial ratios?
  - ✓ Can solvency be reliably predicted?
- ◆ Statistical regression analysis
  - ✓ Dependent variable is solvency measures
  - ✓ Independent variables are success measures

# Funded Status vs. NOI Adjusted: Are They Correlated?



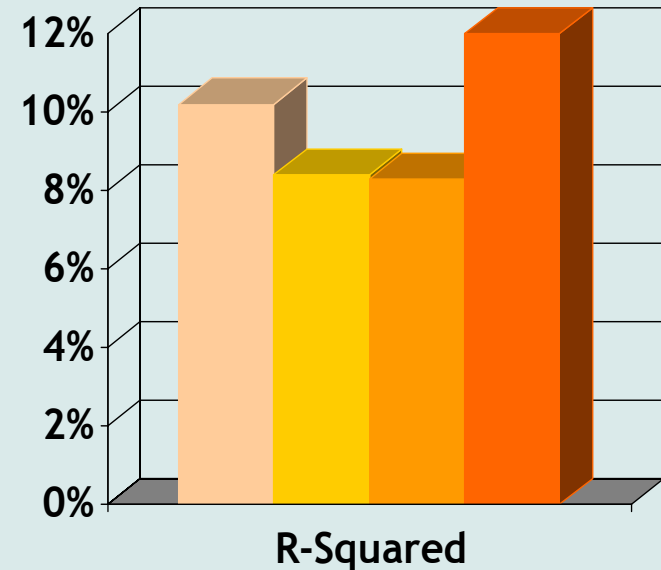
# Correlation to Funded Status “Adjusted”

- ◆ Relatively small correlation values
- ◆ Only Days Cash-on-Hand has a significant correlation coefficient



# Prediction of Funded Status (Solvency)

- ◆ Applied linear regression model with combinations of 5 success measures
- ◆ None show a prediction reliability greater than 15%
- ◆ Will sophisticated analysis yield better results?



# Observations

- ◆ Most of our clients are solvent
  - ✓ 50%+ excluding new entrant fee surplus
  - ✓ 70%+ including new entrant fee surplus
- ◆ Difficult to determine whether solvent using traditional financial ratios due to:
  - ✓ Contract mix
  - ✓ Portion of costs covered by entry fees
  - ✓ Amount of debt
  - ✓ Age of facility

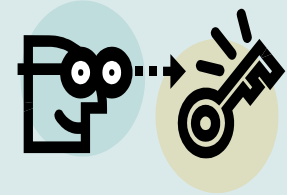
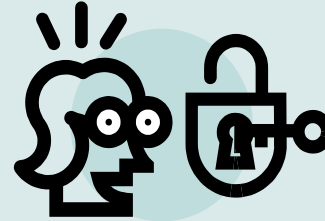
# Financial Ratios as Scorecards?

- ◆ Median ratios critical for creditworthiness
  - ✓ Fitch
  - ✓ CARF-CCAC
- ◆ Defining planning targets !?
- ◆ Benchmarks biased against using on entry fees which are a core element of pricing structure
  - ✓ Entry fees are a prepayment of monthly fees
  - ✓ Actuarial ratio median of 70% suggests that 30% of costs are expected to be covered by entry fees

# Summary

- ◆ An entry fee CCRC will likely be able to pay its expenses indefinitely if:
  - ✓ Can regularly increase fees in an inflationary environment
  - ✓ Stays relatively full, i.e., 90% or more
  - ✓ Continues to offer same type of contracts
- ◆ Achieving solvency is more challenging
  - ✓ Move from “pay-as-you-go” to future outlook
  - ✓ Consider pension plans and social security

# How Do You Get to a Solvent Position?



## ◆ 6 keys

- ✓ Learn marketplace desires
- ✓ (Re)Design contracts to meet those desires
- ✓ Manage and/or reduce operating expenses
- ✓ Adjust fees with consideration of what market values, but must be actuarially adequate
- ✓ Keep occupancy high
- ✓ Set and meet goals to achieve and maintain a solvent position (individual facility thresholds)

# A Simple Set of Financial Standards/Goals

- ◆ Limited statistical analysis suggests that a simple set may be elusive
- ◆ Alternative methods
  - ✓ Set fees to meet target of satisfactory actuarial balance, OR
  - ✓ Update long-term financial projections annually,  
OR
  - ✓ Other suggestions?

