



Society of Actuaries

Summary of Market Opportunity Research

October, 2002

Research Conducted by Leading Solutions Group

Background

In the first quarter of 2001, the SOA Board of Governors approved the SOA Strategic Plan, serving as the roadmap for the organization. The Board recognized that for many of the strategic initiatives to occur, research among SOA's constituents – namely, employers, members and candidates -- would be necessary to understand their needs. The following presentation is a high-level description of research conducted among employers.

The SOA recently completed research among employers in the marketplace to identify skill sets valued in today's marketplace

SOA's primary objectives in conducting the research were to:

- **Identify most important skill set requirements in the traditional (life, health, etc.) markets and the broader financial service markets**
- **Determine perceptions in the marketplace of the actuarial profession**
- **Identify any gaps and needed changes to existing education and qualifications**
- **Determine potential opportunities and demand for actuaries**

The Market Opportunity research is the foundation for several strategic initiatives in the SOA Strategic Plan including:

- **Define core skill set for basic education and certifications**
- **Preserve FSA/ASA**
- **Promote new applications of actuarial skills**
- **Offer new certifications**
- **Stimulate demand for actuaries**

The research effort was supported by qualitative and quantitative analysis

- **Research design and analysis was conducted by Leading Solutions Group, an independent consulting firm**
- **Initial interviews were conducted among 13 SOA leaders and actuarial and non-actuarial academics to explore markets and skills needed by various markets**
- **Secondary research was conducted to identify trends creating the need for changes in the markets over the next 3-5 years**
- **In-depth interviews were conducted among 54 business leaders to complete the research objectives :**
 - **29 were interviewed from traditional actuarial employers**
 - **25 were interviewed from actuarial and non-actuarial employers in broader financial service markets**

Key Findings

- **Actuaries and other business professionals with actuarial-like skills have key roles to play in helping their employers manage the risk resulting from ever-changing market forces**
- **Employers want the vast majority of risk analysis and problem-solving experts to have a slightly lesser degree of quantitative skill than an actuary, combined with business savvy**
- **Employers, both actuarial and non-actuarial, perceive that few actuaries have BOTH quantitative skills and the business savvy to analyze situations, and then create common sense strategic solutions that are easily communicated to all target audiences**

Employers identified key trends impacting their business

Market Trends Impacting Employers

- **Changing demography**
- **Biological and medical/ pharmaceutical revolution**
- **Electronic technology**
- **Market volatility**
- **Regulatory change**
- **Globalization**

Marketplace trends are pushing employers towards a need for greater flexibility and customer focus

Implications of Marketplace Trends upon Employers

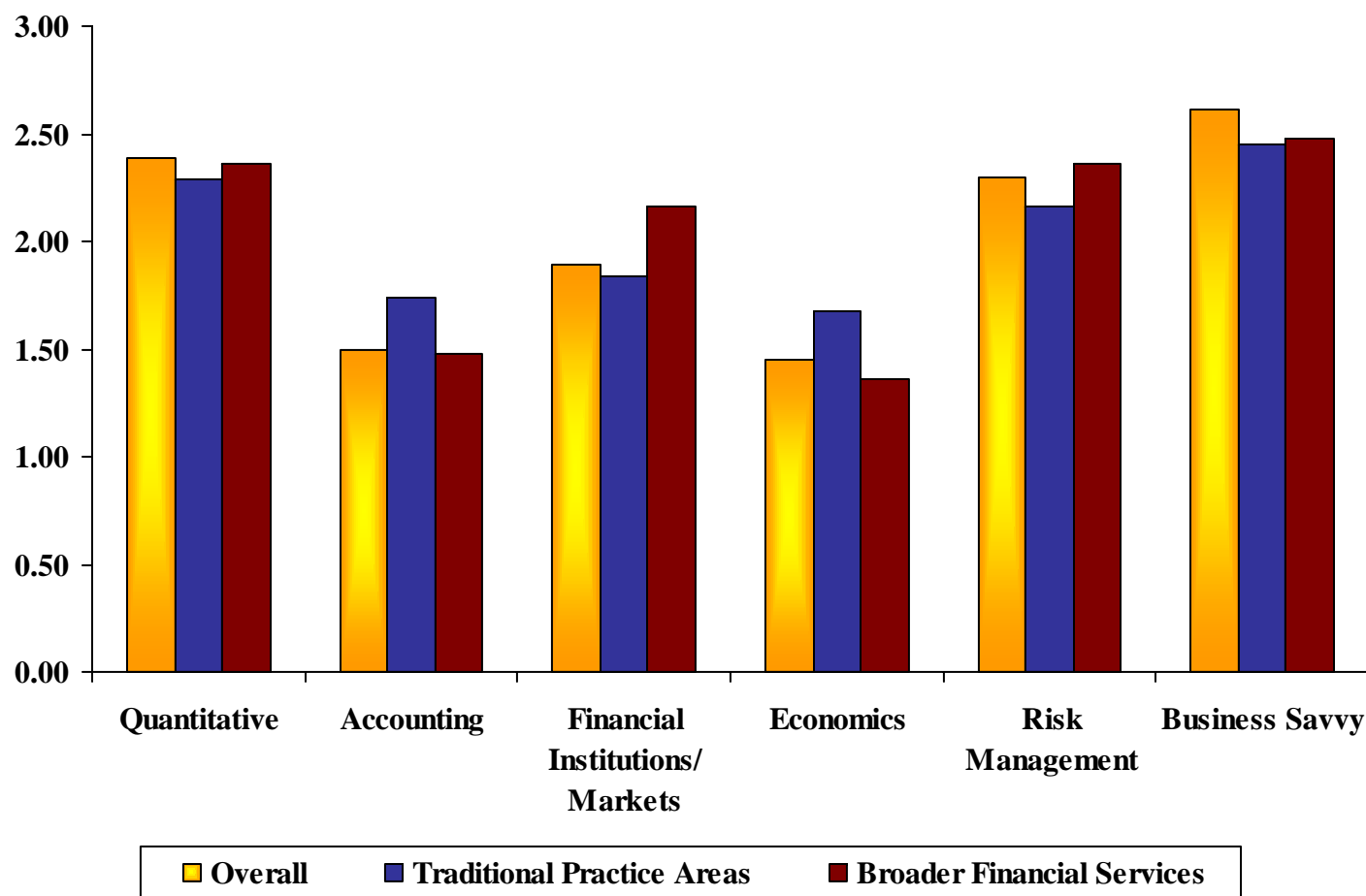
- Ability to satisfy multiple distribution points for multiple products
- Mergers and acquisitions
- Need for customer focus & intimacy
- Greater demand for customized-hybrid products
- Easy, instant information access
- Deregulation with transparency
- Margin pressure

Employers seek specific skills when hiring people to help analyze and manage risks arising from market trends

- **Both the traditional and broader financial service markets place the most relative importance on these skills sets:**
 - **Quantitative**
 - **Assess and manage risk**
 - **Business savvy**
 - **Business communication**
 - **Business acumen**
- **The level of knowledge or capability within each skill varies by market**
- **Other skills employers place lesser importance on include accounting, economics, knowledge of financial institutions**

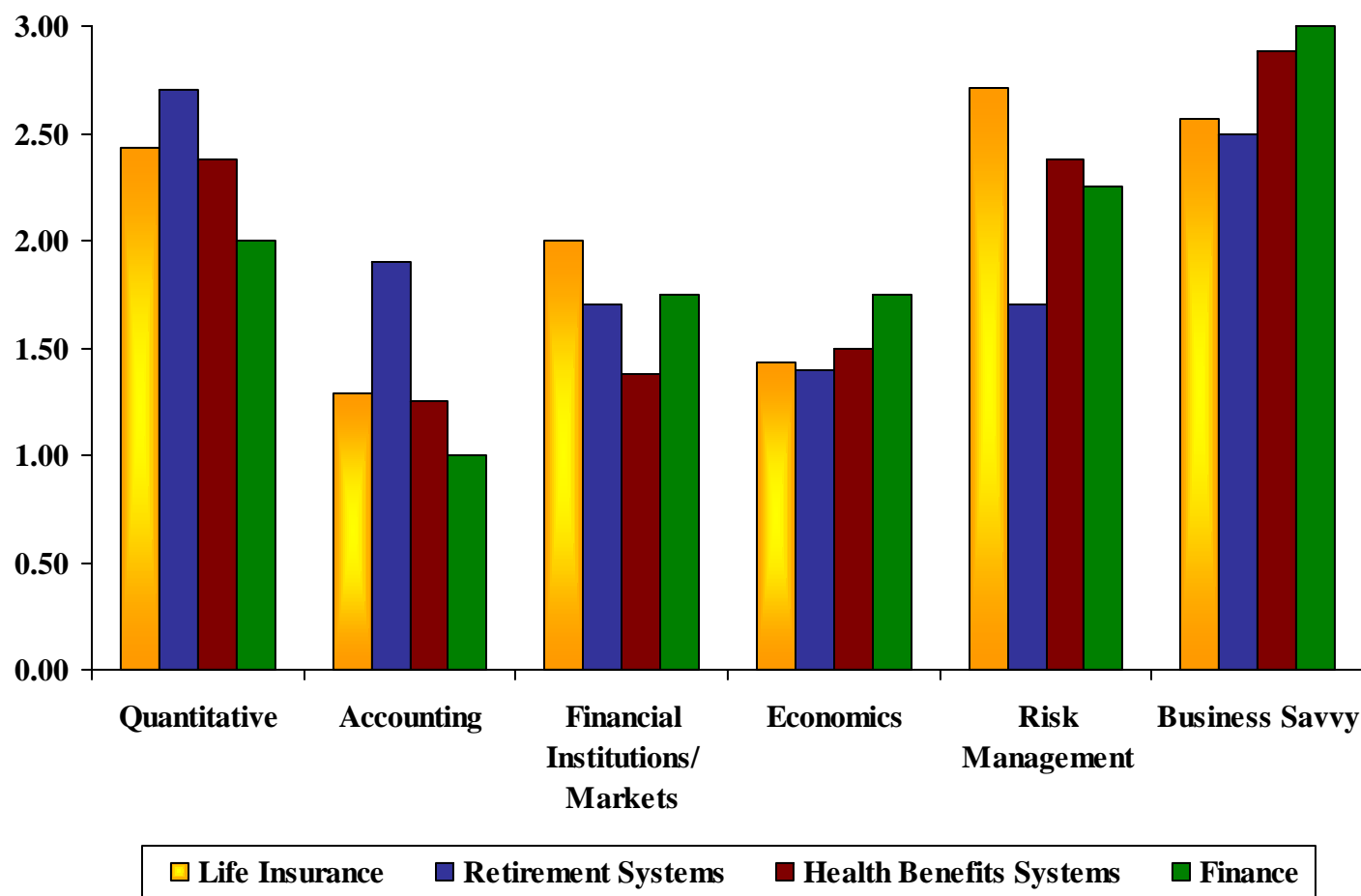
Business savvy, quantitative, and risk management skills most desired by employers

Relative Importance of Skill Sets



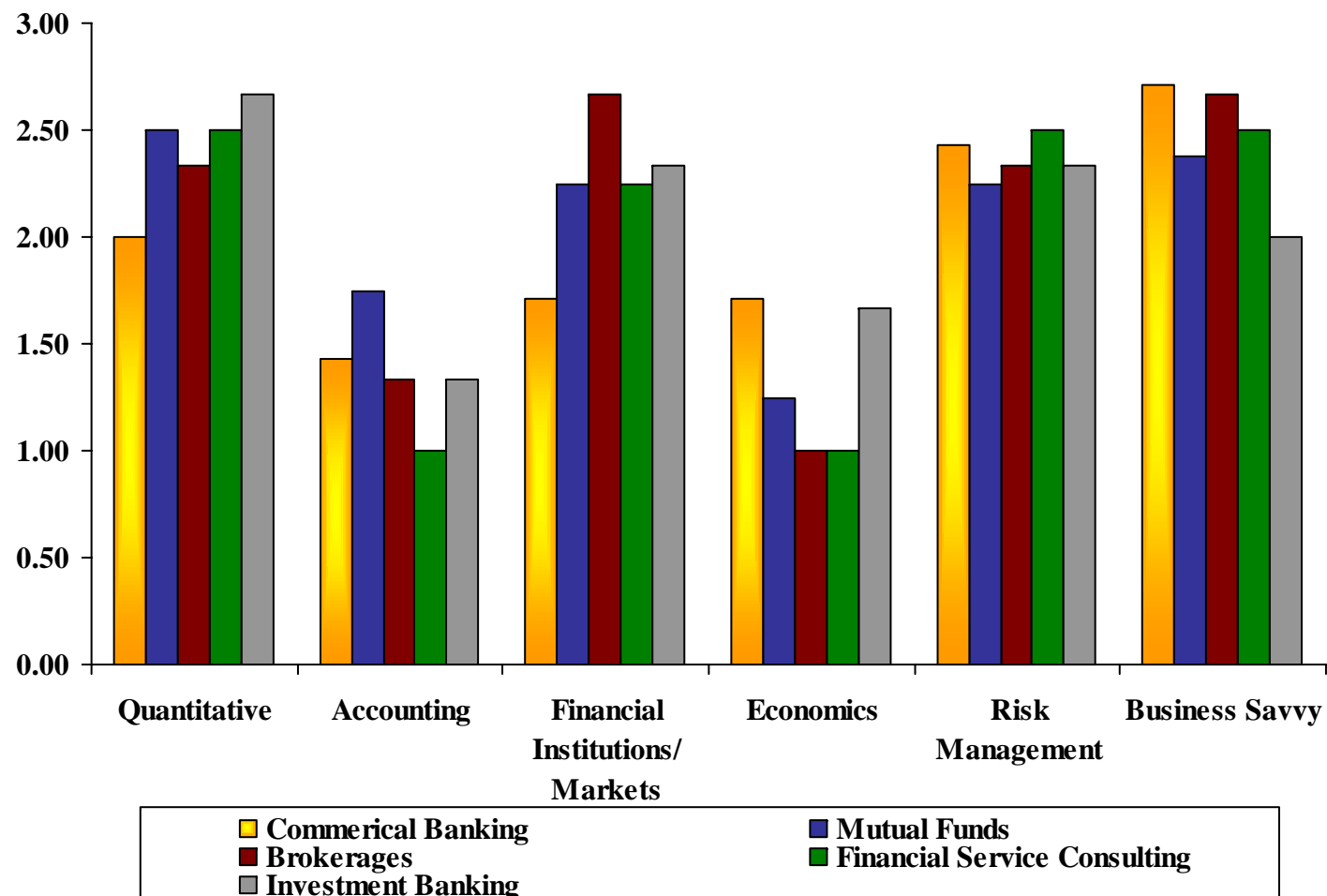
Relative importance of skills varies by practices area

Relative Importance of Skill Sets by Traditional Practice Areas



...and by markets within the broader financial service sector

Relative Importance of Skill Sets by Broader Financial Service Markets

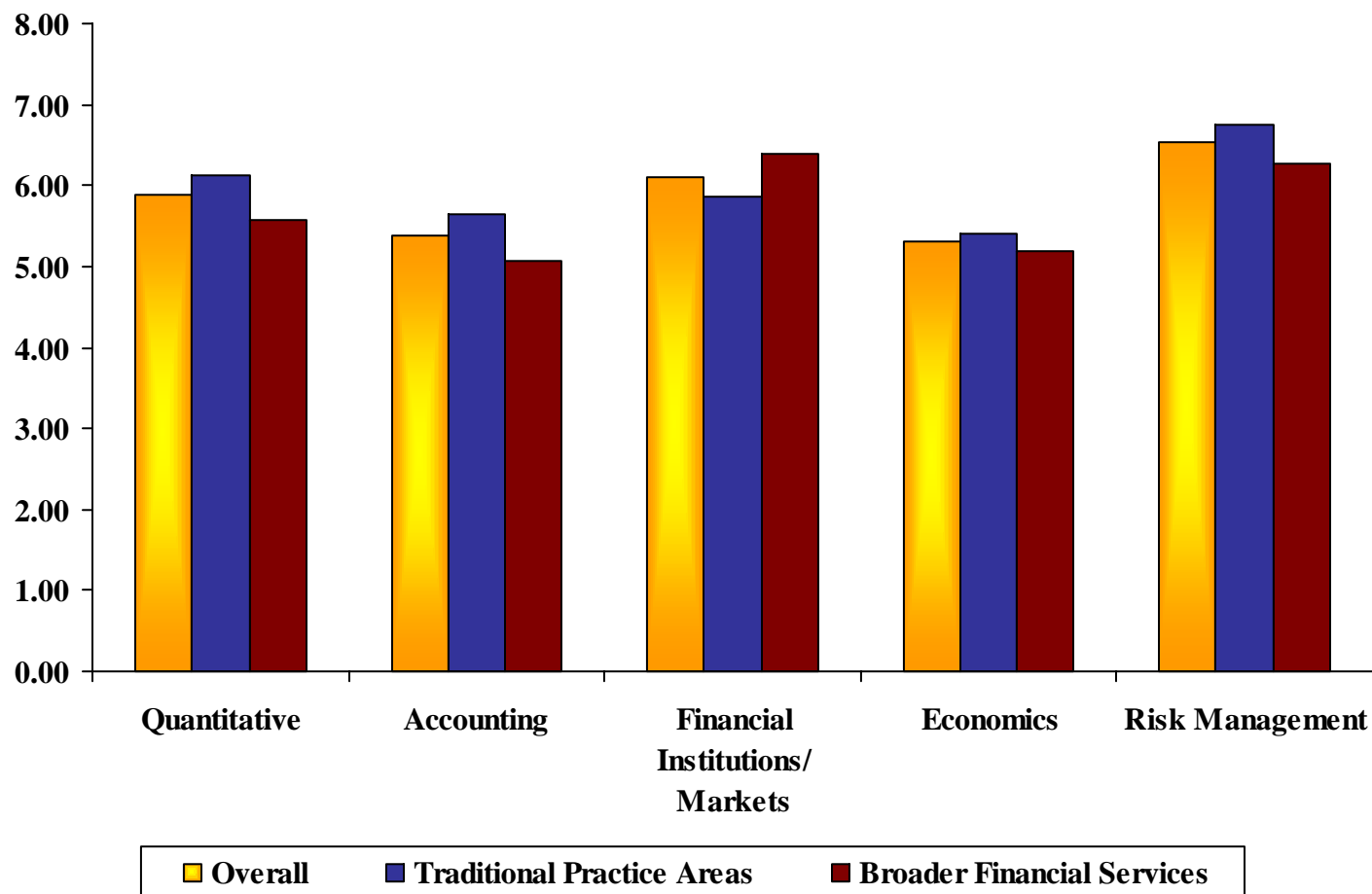


Level of skill desired

- **Level of capability within each skill was tested using a 10 point gradient scale, where 10 is top level of knowledge or practice of the skill and 1 is basic proficiency of the skill**
- **The level of skill desired by employers in the practices areas and broader financial service sectors ranged from level 4 to 9 depending upon the skill**
- **Business savvy proficiency was measured separately and included multiple sub-skills**
 - **Business communication**
 - **Self development**
 - **Leading people**
 - **Business acumen**
 - **Relating to others**
 - **Personal courage**

Overall, employers seek employees with a slightly above average level of skill

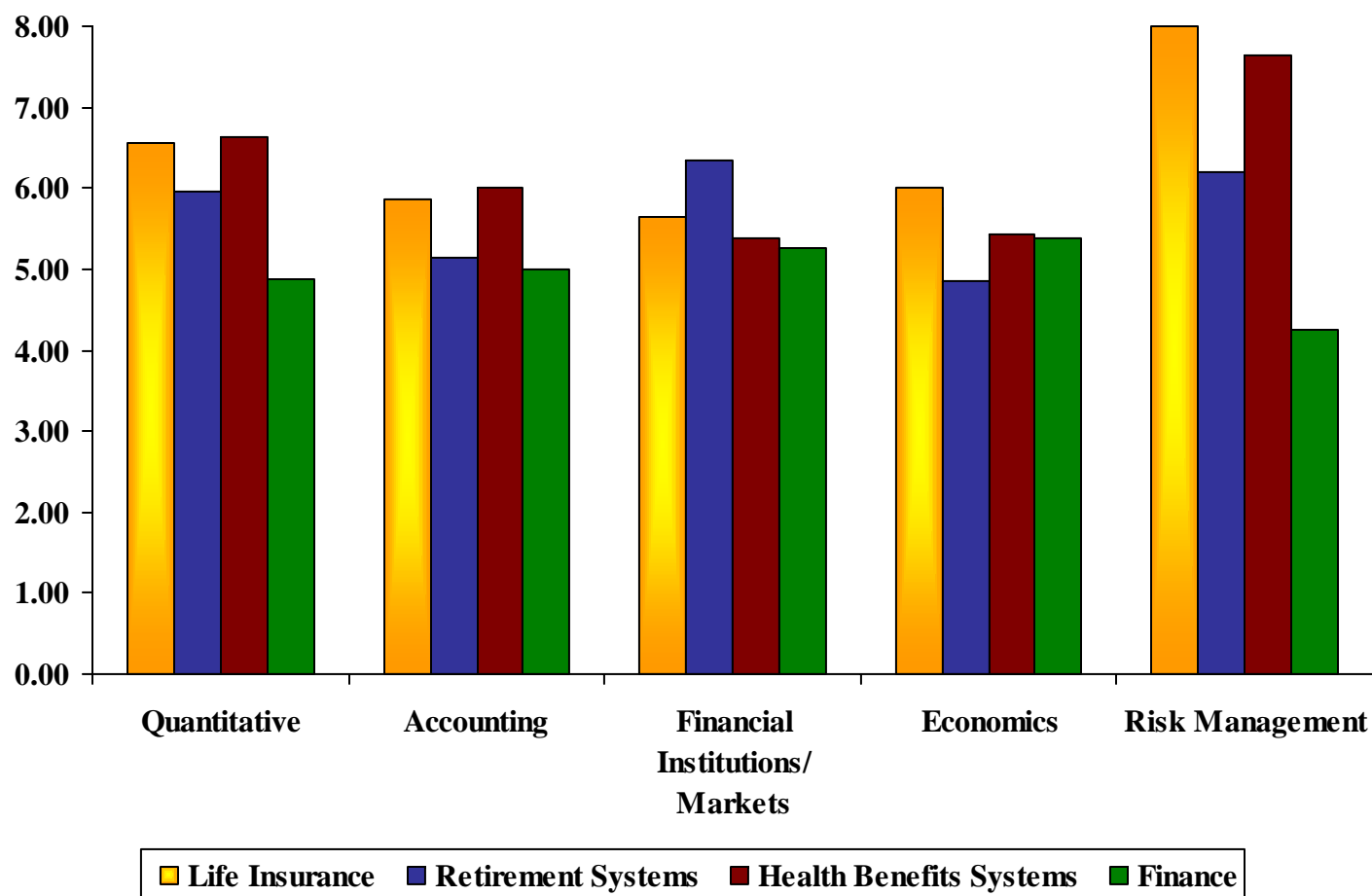
Skill Set Gradient Mean Response



Note – Measured on a competency scale where 1 is least competent and 10 is most competent. See Appendix A for definition of competency levels by skill set
 Source: *Market Opportunity Research*, Leading Solutions Group

The level of proficiency sought by employers in different practice areas varies for each skill

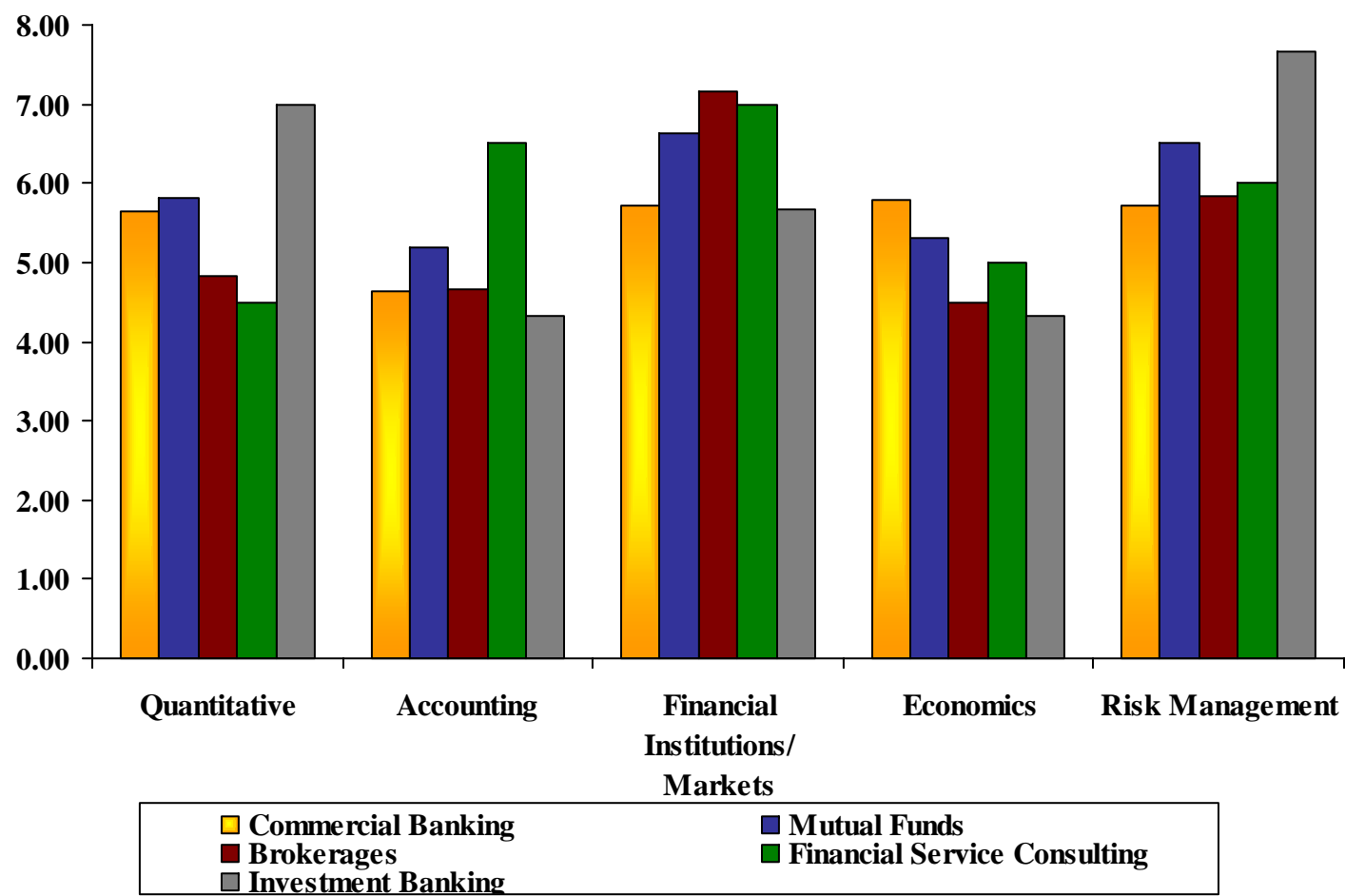
Skill Set Gradient Mean Response by Traditional Practice Area



Note – Measured on a competency scale where 1 is least competent and 10 is most competent. See Appendix A for definition of competency levels by skill set
 Source: *Market Opportunity Research*, Leading Solutions Group

....and by markets within the broader financial service sector

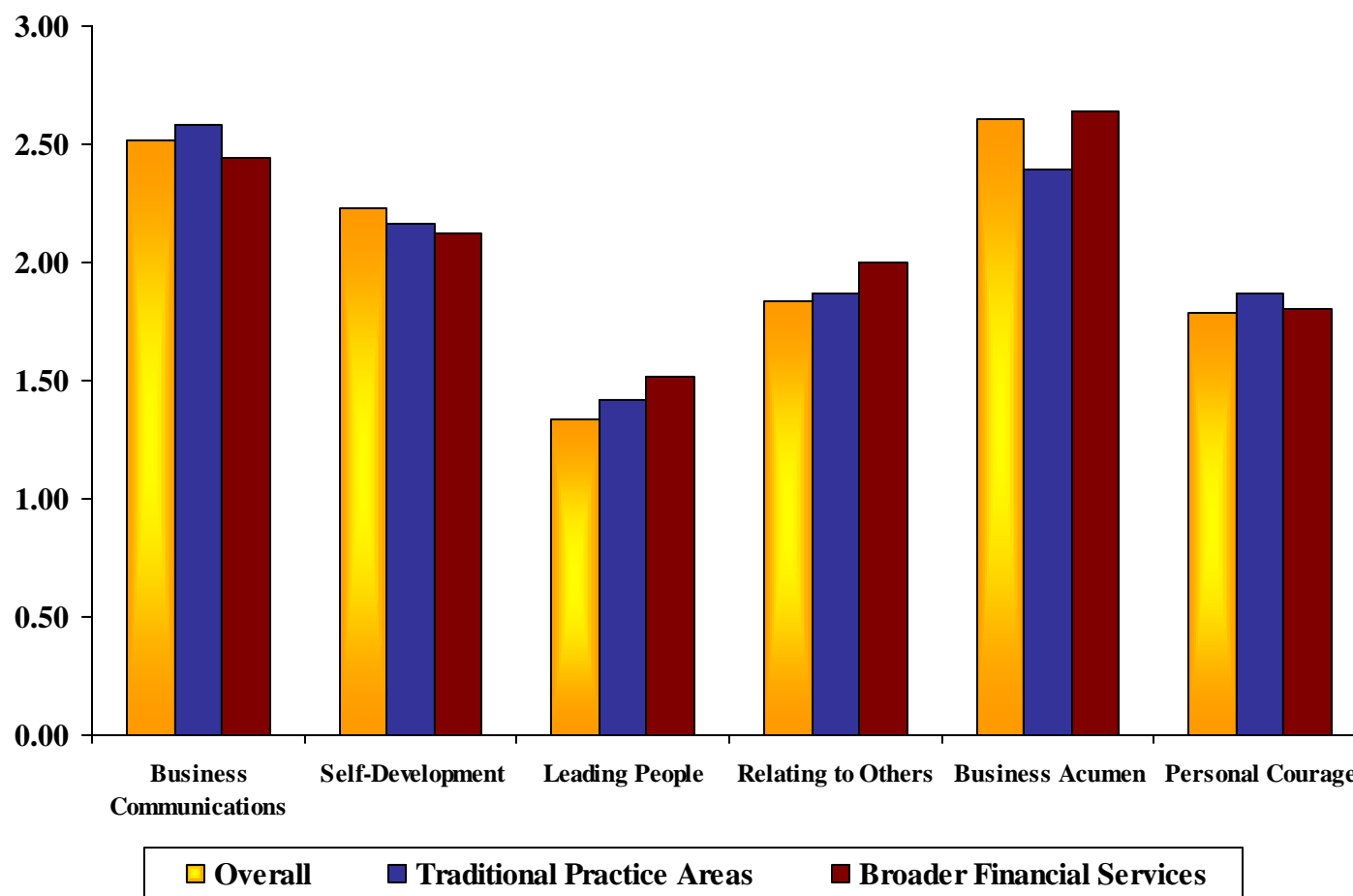
Skill Set Gradient Mean Response by Broader Financial Service Markets



Note – Measured on a competency scale where 1 is least competent and 10 is most competent. See Appendix A for definition of competency levels by skill set
 Source: *Market Opportunity Research*, Leading Solutions Group

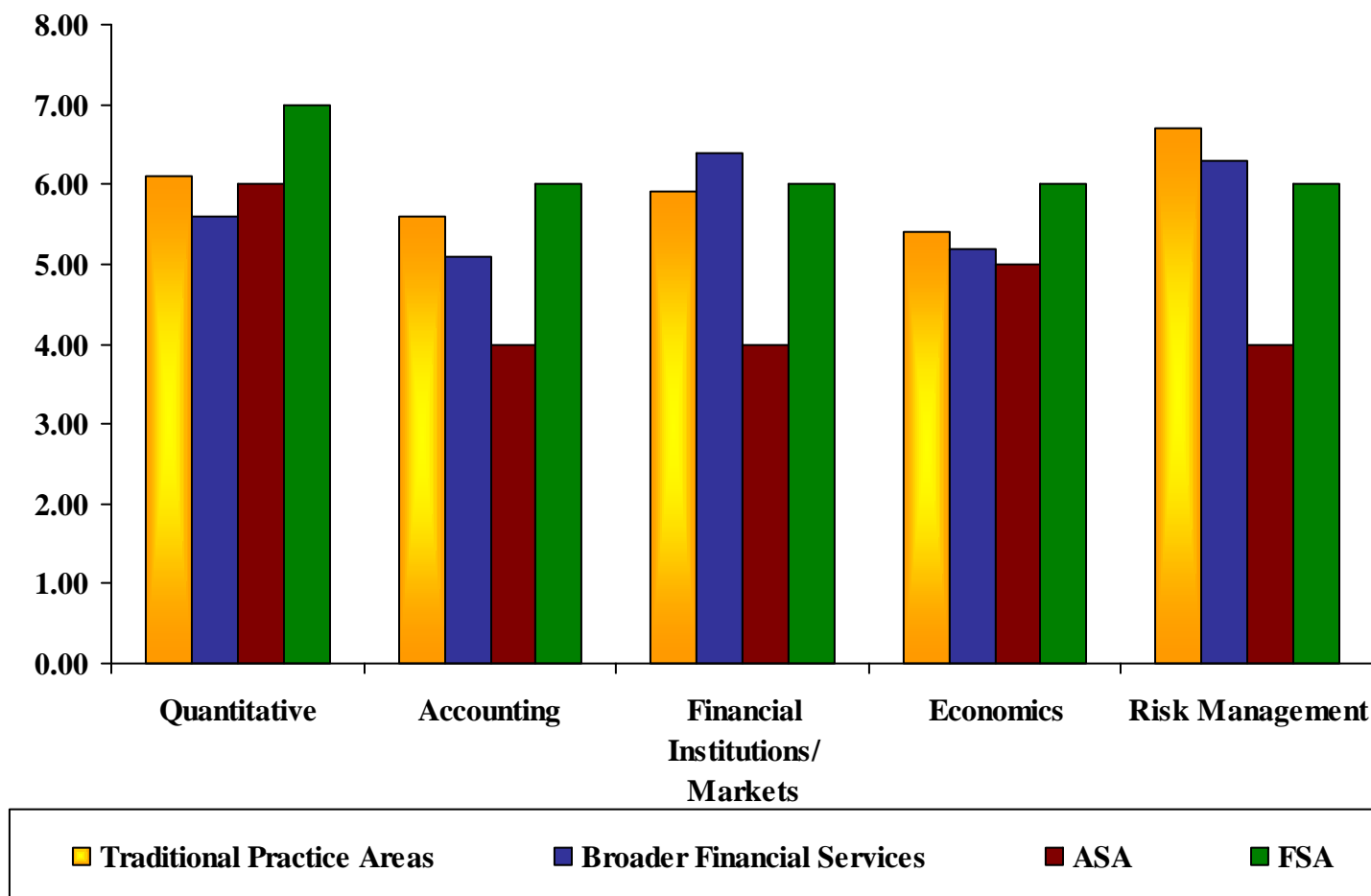
Finally, business acumen and business communications are the most desired “business savvy” skills sought by employers

Relative Importance of Business Savvy Skills



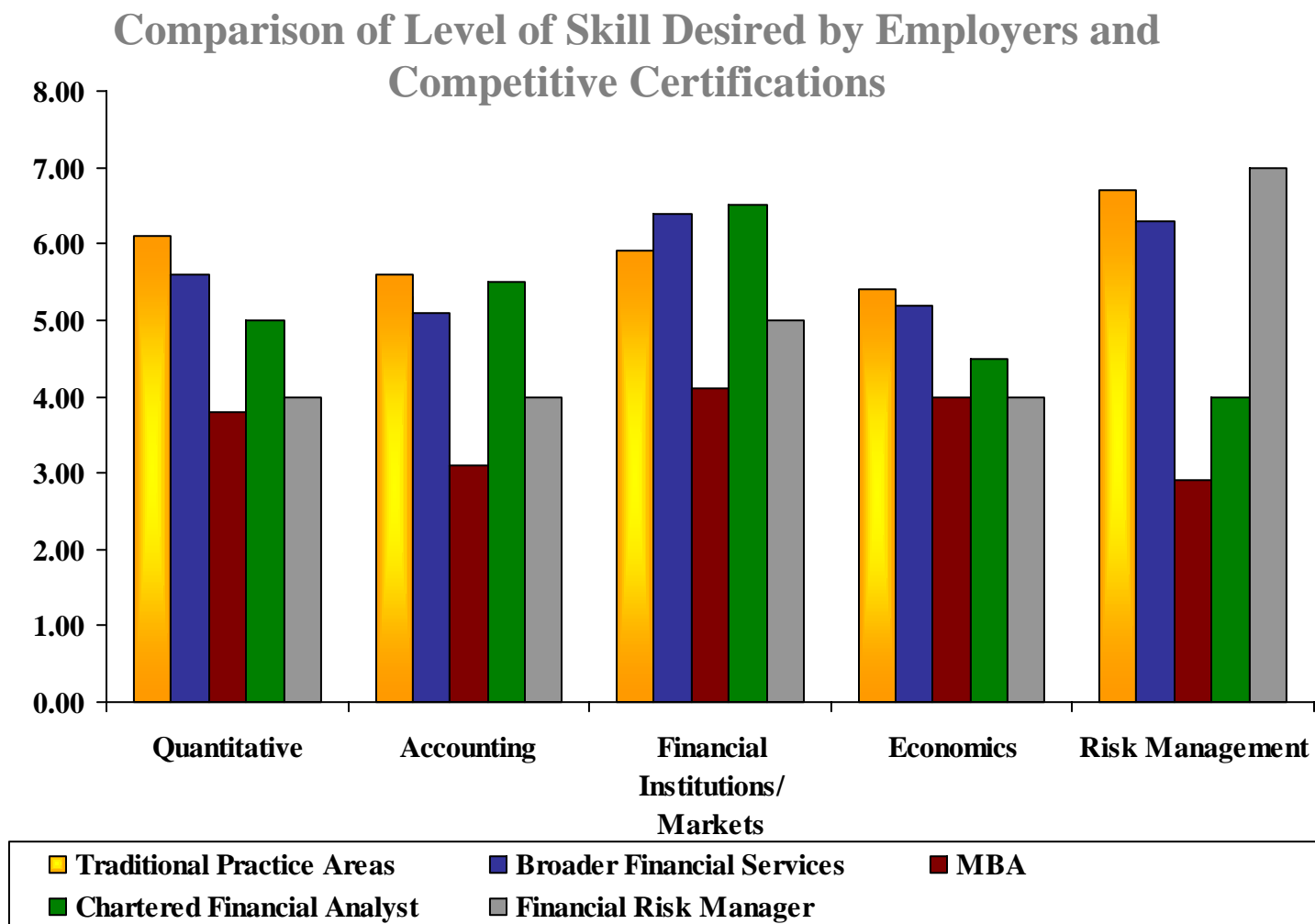
For some of the skills, there is a gap in the level of skill desired by employers versus the content tested for FSA and ASA

Comparison of Level of Skill Desired by Employers and FSA/ASA



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 Source: *Market Opportunity Research*, Leading Solutions Group

The greatest source of competition lies in Chartered Financial Analyst and Financial Risk Manager training



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 Source: *Market Opportunity Research*, Leading Solutions Group

Recommendations made by Leading Solutions Group

- 1. The SOA should align education and qualifications requirements to more closely match the marketplace's desires**
- 2. Consider offering at least one new credential focusing on the skill sets desired by the Broader Financial Service Markets**
- 3. Work swiftly and diligently to change the perception of actuaries as one-dimensional insurance-sector professionals**
- 4. Continue the process of collecting feedback from employers to ensure alignment of SOA education and qualifications requirements with employers' needs**

- If you wish to view the entire Market Opportunity Research Report please visit www.soa.org
- If you have any questions or feedback about the results or recommendations, please contact Meredith Lego, Marketing Manager, at mlego@soa.org

Appendix

Definition of level of capability

Level of Capability	Quantitative	Accounting
10	PhD in math, physics	Professor of accounting or CFO of Fortune 500 firm
9	Extensive experience applying complex, multivariate modeling to diverse business problems	Partner in a national or international CPA firm
8	Adept with complex, multivariate modeling, chaos mathematics	CPA
7	Performs calculus-based statistical modeling	Audits financial statements and prepares tax returns
6	Adept with the calculus, finite and infinite series, differential equations	Analyzes financial statements and prepares pro forma projections
5	Applies multivariate statistical methods, multiple regression, multivariate analysis of variance; the general linear model	Analyzes details in income statements, performs asset valuations, liability analysis
4	Applies basic statistics, simple linear regression, analysis of variance, and non-parametric techniques	Applies reserving and asset valuation techniques
3	Facile with algebra, simple and compound interest, time value of money	Interprets financial services firms' financial statements
2	Calculates ratios and accounting metrics	Interprets income statement, balance sheet, and cash flow
1	Achieves basic business numeracy; can balance a checkbook and read budgets	Double entry/general ledger principles

Definition of level of capability (continued)

Level of Capability	Financial Institutions/Markets	Economics
10	Manages treasury, serves as CFO for Fortune 500 corporation	Makes national monetary policy
9	Manages portfolios of assets, mutual funds, or trades currencies	Professor of economics
8	Performs arbitrage tasks; structures investment banking deals	Adept with econometric modeling, forecasting
7	Models and analyzes financial risk for enterprises; analyzes market sectors or funds	Explains and forecasts interest rate curves, market trends, expansion and recessions
6	Creates pricing models for new securities issues	Forecasts short-term economics trends; can explain monetary policy
5	Analyzes assets/liabilities and recommends management strategy and tactics	Explains global trade dynamics, monetary policy
4	Values assets and analyzes liabilities	Interprets national, regional and global macroeconomic indicators
3	Analyzes consumer credit	Explains inflation, micro-level economic unit behaviors
2	Explains fluently various securities, cash instruments, and secondary market trading	Interprets supply and demand curves, basic economic data
1	Explains financial intermediation and the role of financial institutions	Describes supply and demand

Definition of level of capability (continued)

Level of Capability	Assessment and Management of Business Risk
10	Heads risk management for Fortune 500 firm; or global consultant in business risk management
9	Functions as chief actuary or risk manager
8	Analyzes and manages mitigation of enterprise risk
7	Designs enterprise financial and other kinds of risk management strategy and tactics
6	Analyzes enterprise risks and forecasts exposures
5	Manages enterprise insurance planning and coverage
4	Explains and evaluates enterprise risk
3	Describes and explains techniques for managing risk
2	Describes and explains the role of insurance and reinsurance
1	Explains various types of enterprise risk: financial, operational, political...

Business Savvy skills definition

Skill Area	What the Area Includes
Business Communication	Excellent one-on-one verbal communicator; makes persuasive, logical and engaging business presentations; fluent business writing skills; listens well; sorts incoming data and distributes it effectively to others who need it.
Self-Development	Has intellectual horsepower to learn new information quickly; connects seemingly disparate facts into new insights; accepts accountability to develop own knowledge across a broad range of interests; ambitious to advance in his or her career.
Leading People	Assesses people accurately; deals with subordinates even-handedly and candidly yet with compassion and caring for others; engenders the respect of others who will follow his or her lead; achieves organizational goals by motivating others to excel
Relating to Others	Shows savvy in interpersonal relationships; exhibits a flexibility in dealing with diverse behavior in others; builds a network of open, collaborative trusting relationships within and without the organization; handles conflict productively; builds team esprit de corps.
Business Acumen	Perceives quickly the essence of business situations, and acts accordingly; devises creative, systemic solutions to problems; balances attention to tactical detail and a broad strategic view; gets results by building processes that work and continuously improve; exhibits a broad knowledge of business disciplines beyond own areas of expertise.
Personal Courage	Shows composure despite fear; acts with consistency and high ethical standards; speaks truthfully; shows self-knowledge and strives to develop; engenders trust among others; balances work, life, and good health.