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Human Resource Needs in the Evolving Financial Sector

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As banks, securities houses, and insurance companies offer increasingly similar services, how have their human resource needs changed? An analysis of survey data reveals that all three industries have come to rely more heavily on high-skilled labor; however, the educational and occupational profiles of their workforces have not become substantially more alike.

In the past, commercial banks were characterized by their deposit-taking and lending activities, while investment banks were characterized by their securities underwriting and investment advisory services. More recently, increased competition, technological change, and a chipping away at the regulatory barriers embodied in the Glass-Steagall Act have led commercial banks to expand their activities into domains traditionally associated with investment banks, brokerage houses, and insurance companies.[1] At the same time, investment banks are venturing into commercial lending and brokerage houses are attracting an increasing share of household savings invested in mutual funds. These developments have generated a widespread belief that banks, securities firms, and insurance companies are evolving into all-purpose financial institutions.

This edition of *Current Issues* examines the human resource trends that have accompanied these changes in the financial sector. As financial institutions offer increasingly similar services, we could expect their human resource needs to become more uniform as well. To determine whether this is occurring, we look for evidence of convergence—that is, increasing similarity—in the educational and occupational makeup of the banking, insurance, and securities industry workforces since the mid-1980s. Educational profiles are useful indicators because they provide a sense of the general skill level of an industry's workforce; occupational profiles provide a sense of how an industry uses its human resources.

Despite the prevalent notion that banks, securities firms, and insurance companies are becoming all-purpose financial institutions, our analysis provides little evidence of meaningful convergence in either the educational or the occupational profiles of these industries. We therefore conclude that substantial staffing changes lie ahead if these firms are to complete the transition to all-purpose financial institutions.

The Evolving Financial Sector

Regulatory limits on the activities of commercial banks have been relaxed substantially over the past decade, enabling banks to heighten their involvement in securities underwriting and the sale of insurance and investment products. Such expansion into new lines of business is reflected in changes in industry income. Between 1984 and 1994, interest income from commercial banks' domestic lending fell as a percentage of operating income, while noninterest income from their trading accounts and from other nondeposit sources climbed sharply.[2]

As the products banks offer begin to resemble those traditionally associated with nonbanks, the delivery systems banks use are evolving as well. Recently, banks have begun to transform their branches into marketing

outlets for investment and insurance products. Alternatives to the traditional branch include investment centers, supermarket kiosks, and phone centers, staffed largely by sales representatives rather than traditional bank tellers (Radecki, Wenninger, and Orlow 1996). Of course, banks have also changed the ways in which they deliver traditional services to their customers, as evidenced by a 137 percent increase in ATM transactions between 1984 and 1994 (Rhoades 1996).

Just as commercial banks have ventured into activities historically associated with securities and insurance firms, these nonbank firms have begun to compete with commercial banks in certain traditional banking activities. For example, securities firms, which have offered close substitutes for checking accounts for many years, have recently increased their lending capabilities, particularly their presence in the syndicated loan market (*American Banker* 1997).

If the human resource needs of the three industries are in fact converging, cross-industry differentials in educational attainment should diminish over time. However, with all three industries experiencing a similar shift toward college-educated workers, differences in the educational profiles have* not *narrowed.

Recent acquisitions of securities and brokerage firms by commercial banks underscore the changing human resource needs of some large institutions.[3] But is there evidence that financial institutions as a group are converging in their staffing choices as their business activities increasingly overlap? To answer this question, we turn to data from the Current Population Survey (CPS), a household-based survey conducted each month by the U.S. Commerce Department's Bureau of the Census. In particular, we present data describing the education, occupation, and earnings of individuals employed in the banking, insurance, and securities industries between 1983 and 1995.[4] The CPS is extremely comprehensive, containing information from interviews with thousands of households from all regions and income levels. The size of the data set and the care with which it is compiled permit authoritative analysis of workforce trends.[5]

Educational Attainment: Are Skill Levels Converging?

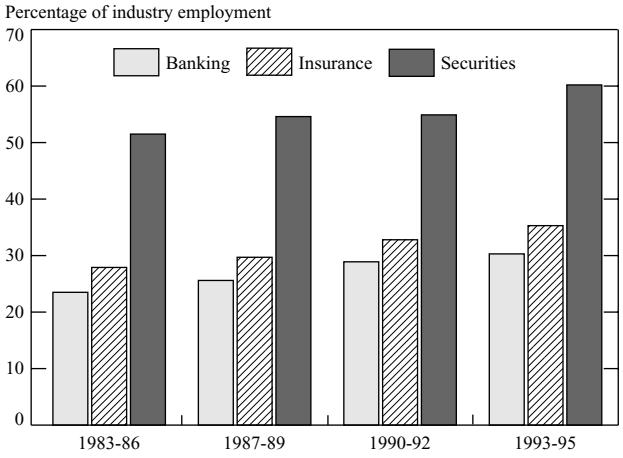
A worker's educational attainment is a readily available indicator of his or her general skill level. Hence, one way to summarize an industry's human resource needs is to describe the educational distribution of its workforce. As the chart shows, the percentage of workers with college degrees climbed steadily in all three industries over the period examined.[6] However, the educational attainment of workers in the securities industry substantially exceeded that of employees in insurance, which in turn exceeded that of workers in banking.

For this analysis, the most important lesson to draw from the chart regards trends in cross-industry education differentials. If the human resource needs of the three industries are in fact converging, cross-industry differentials in educational attainment should diminish over time. However, with all three industries experiencing a similar shift toward college-educated workers, differences in the educational profiles have *not* narrowed. Educational differences in the banking, insurance, and securities workforces have actually increased slightly between 1983 and 1995.

Is the Occupational Mix across Industries Becoming More Uniform?

Next, we track changes in the occupational profiles of banks, insurance companies, and securities firms over the 1983-95 period to determine whether these financial industries are converging in their use of human resources. We sort detailed occupations reported in the CPS into twelve classifications (Table 1).[7] The classifications are ranked according to 1993-95 median weekly earnings for full-time workers in the banking industry.[8] At the head of the ranking are managerial and other professional occupations; mid-level occupations include sales workers and office supervisors; occupations such as financial records processors and bank tellers follow.[9]

Workers with College Degrees, by Industry



Source: Author's calculations, based on data from the U.S. Census Bureau's Current Population Survey.

The 1983-85 occupational profiles of the three industries (Table 2, columns 1-3) provide a benchmark for our comparison of past and present. They show that important differences existed among the three industries in this period. At the high end, the banking and securities industries were similar, but the insurance industry relied less heavily on top-level managers. Moving down the columns, we see that accountants and auditors had substantially greater representation in banking.

The most obvious difference between the industries was found in the sales occupation. The sales orientation of the insurance and securities industries showed through strongly, with sales workers in 1983-85 accounting for 28 percent of all insurance employees and close to 40 percent of all securities employees. By contrast, sales workers made up only about 1 percent of all banking employees. Even if all tellers were categorized as sales workers, the representation of the sales occupation in the banking industry would still have been smaller than in the insurance or securities industries.[10] As we continue to read down the columns, we see that the banking industry relied more heavily on office supervisors and financial records processors than either the insurance or the securities industry. In administrative support, the insurance industry took the lead. Overall, there were noticeable differences between the human resource needs of banks, insurance companies, and securities firms.

A look at the occupational profiles for the three industries ten years later enables us to evaluate whether recent financial sector developments have lessened these differences (Table 2, columns 4-10). Perhaps the most striking pattern observed in the 1993-95 profiles is the reduced reliance on relatively low-paying occupations and the increased reliance on relatively high-paying ones in all three industries. (The exception is the insurance industry's reduced reliance on top-level managers.) The occupational upgrading that is so clearly evident here is consistent with the educational trends depicted in the chart: both mirror an economywide shift in employment away from the lower skilled segments of the workforce toward the higher skilled ones.

To get a better sense of the changing human resource needs in each of the three industries, we now look at trends associated with specific occupations. Between 1983-85 and 1993-95, the employment share of managers increased in banking and securities but declined at insurance firms, further increasing the disparity that existed at the start of the period. For accountants and auditors, representation in the insurance industry climbed faster than in banking and securities (in terms of both percentage point changes and percentage growth), but accountants and auditors maintained a substantially larger employment share in banking than in the other industries. Cross-industry differences persisted for office supervisors and financial records processors—

Table 1
Occupational Classifications and Weekly Earnings

Occupational Classification	Typical Occupations	Weekly Earnings in Dollars, 1993-95		
		Banking	Insurance	Securities
Managers	Managers and top administrators, including financial managers (credit managers, branch managers, financial advisors) and real estate managers	721	911	1,039
Professional specialty	Computer systems analysts, economists	684	778	781
Technicians	Computer programmers, legal assistants	629	609	654
Accountants and auditors	Loan officers and counselors, credit analysts, underwriters, accountants, auditors	612	576	681
Sales	Securities and financial services sales workers	503	599	774
Management-related workers	Personnel, training, and labor relations specialists; other management-related occupations	488	564	535
Laborers	Mechanical and electronic repairers, construction workers	443	522	368
Office supervisors	General office supervisors	412	570	470
Administrative support[a]	Secretaries, investigators, adjusters	344	387	398
Financial records processors	Bookkeepers, accounting and billing clerks	314	398	431
Service workers	Guards, janitors	303	348	382
Tellers	Bank tellers	274	N.A.	N.A.
Overall median		427	494	656

Source: Author's calculations, based on data from the U.S. Census Bureau's Current Population Survey.

Note: Earnings figures are in 1992 dollars.
[a] Not elsewhere classified.

occupations that experienced a declining employment share in all three industries. The securities industry scaled back its reliance on administrative support workers, resulting in even larger cross-industry differences for that occupation. Hence, despite the common trend toward higher skilled workers, these employment patterns provide little evidence of occupational convergence across the banking, insurance, and securities industries.

Finally, we look at the sales and teller occupations, where historical differences between banks, insurance companies, and securities firms have been extreme. Consistent with the ongoing changes in the provision of retail banking services, the percentage of the banking industry accounted for by sales workers nearly doubled between 1983-85 and 1993-95, from 1.2 percent to 2.3 percent. Still, a stark contrast remains between the representation of sales workers in the banking, insurance, and securities industries. By 1993-95, the share of the banking industry employed in sales was still well below 5 percent, while the sales representation in the insurance industry had risen from 28 percent to 30 percent and the representation in securities had risen from 39 percent to 42 percent.

Bank tellers accounted for 21.9 percent of banking industry employment in 1983-85 and 19.3 percent a decade later. This decline is not exceptionally large relative to trends associated with other occupations, whether those trends are measured in terms of percentage point changes or percentage change. This finding may be surprising in light of the dramatic increase in the use of ATM technology. One explanation is that the number of banking offices actually increased over the period examined, offsetting decreases in the number of tellers *per bank office*.[11] Estimates based on CPS data and on data from Rhoades (1996) suggest that the average number of tellers per bank office fell from about 8.25 in 1983-85 to about 6.50 in 1993-95.[12]

Despite the common trend toward higher skilled workers, . . . employment patterns provide little evidence of occupational convergence across the banking, insurance, and securities industries.

A second explanation for the surprisingly small decline in tellers' employment share is that our calculation is based on the number of employees in each occupational group, not on their hours worked. Teller hours as a percentage of all bank employee hours fell by a more substantial 4 percentage points, from about 20 percent in 1983-85 to

Table 2
Occupational Profiles by Industry

	Share of Industry Employment, 1983-85 (Percent)			Share of Industry Employment, 1993-95 (Percent)			Share Change, 1983-85 to 1993-95 (Percentage Points)			Share of Employment, 1993-95 (Percent)
	Banking (1)	Insurance (2)	Securities (3)	Banking (4)	Insurance (5)	Securities (6)	Banking (7)	Insurance (8)	Securities (9)	All 3 Industries (10)
Managers	13.1	6.9	13.2	17.2	4.9	16.4	+ 4.1*	- 2.0*	+ 3.2*	11.4
Professional specialty	1.9	3.7	3.0	2.9	5.5	4.9	+ 1.0*	+ 1.8*	+ 1.9*	4.3
Technicians	1.4	2.6	1.7	1.4	3.5	2.1	0	+ 0.9*	+ 0.3	2.4
Accountants and auditors	14.1	5.5	6.7	16.1	7.7	7.8	+ 2.0*	+ 2.2*	+ 1.1	11.2
Sales	1.2	28.1	39.3	2.3	29.5	42.1	+ 1.0*	+ 1.4*	+ 2.8*	20.0
Management-related workers	1.5	1.4	1.4	2.5	2.7	3.4	+ 1.0*	+ 1.3*	+ 2.0*	2.7
Laborers	1.1	0.8	0.9	0.8	0.9	0.7	- 0.3	+ 0.1	- 0.1	0.8
Office supervisors	5.1	1.6	1.5	4.2	0.9	0.7	- 0.9*	- 0.7*	- 0.8*	2.2
Administrative support[a]	28.9	43.7	28.0	26.9	41.0	19.6	- 1.9*	- 2.6*	- 8.4*	32.4
Financial records processors	7.6	4.6	3.4	5.2	2.8	1.7	- 2.4*	- 1.8*	- 1.7*	3.6
Service workers	2.2	1.2	0.9	1.4	0.7	0.5	- 0.9*	- 0.5*	- 0.4	0.9
Tellers	21.9	0	0	19.3	0	0	- 2.6*	N.A.	N.A.	7.9
Percentage of time period sample	47	43	10	42	45	13	N.A.	N.A.	N.A.	100

Source: Author's calculations, based on data from the U.S. Census Bureau's Current Population Survey.

[a] Not elsewhere classified.
* Statistically significant at the 5 percent level; significance is calculated as in Larsen and Marx (1986, p. 380).

about 16 percent in 1993-95.[13] Nevertheless, since tellers still accounted for almost one in five banking industry employees in 1993-95, it appears that the retail branch network remains a distinguishing feature of the banking industry—one that results in important differences between the staffing needs of this and other financial services industries.

Conclusion

Our analysis shows strong evidence of an upgrading of worker skills throughout the financial sector but few signs of meaningful convergence in the educational and occupational profiles of the banking, insurance, and securities industries between 1983 and 1995. If financial firms are to become true all-purpose institutions, these results suggest that extensive staffing changes lie ahead.

Banks' changing human resource needs should have the most pronounced effect in the sales and teller occupations, where the differences between banks and other financial industries are greatest. We should also see convergence in educational profiles—an outcome requiring an increase in the educational attainment of the average bank employee. Finally, if the educational and occupational profiles of the banking, securities, and insurance industries do converge, we would expect to see increased similarity in their pay structures as well.

Notes

1. The Glass-Steagall Act of 1933 imposed restrictions on commercial banks' abilities to conduct investment banking activities.

2. Berger, Kashyap, and Scalise (1995) find that income from banks' domestic lending fell from 54 percent of operating income in 1984 to 50 percent in 1994. Over the same decade, noninterest income from banks' trading accounts and from other nondeposit sources rose from 10 percent to more than 20 percent of operating income.

3. Examples include Bankers Trust New York Corporation's acquisition of Alex. Brown Inc., BankAmerica Corporation's acquisition of Robertson, Stephens & Company, and Fleet Financial Group Inc.'s acquisition of Quick & Reilly Group Inc.

4. See Craig (1997) for a CPS-based analysis of trends in aggregate commercial bank employment.

5. Throughout our analysis, monthly CPS "outgoing rotation group" data are pooled into multiyear periods to preserve sample size when employment is decomposed by education and occupation. The sample is limited to private workers who receive pay, yielding approximately 10,000 observations for the banking and insurance industries in the 1983-85 and 1993-95 periods, roughly 2,300 observations for the securities industry in 1983-85, and approximately 3,000 observations for the securities industry in 1993-95. The CPS "final weight" is used in calculating educational and occupational frequencies. The CPS "earnings weight" is used in calculating earnings statistics.

The monthly data are compiled by the National Bureau of Economic Research. Comparable 1996 data have been released only in preliminary form, but they reveal a continuation of the trends discussed here.

6. The pattern persists *within* occupations and is therefore not merely a reflection of the changing occupational profiles, which we describe later. Note that both supply and demand factors have boosted the share of college-educated workers throughout the economy. International trade patterns and technological change are commonly cited demand-side explanations for increased reliance on these workers. The growing use of computer technology is especially important in explaining this trend in the financial services sector, since financial firms rely heavily on rapidly evolving computer technology (Morisi 1996).

7. For the most part, the classifications are categories used by the Census Bureau. Exceptions include "accountants and auditors" (extracted from "management-related occupations") and "office supervisors," "financial records processors," and "tellers" (each extracted from "administrative support occupations"). Accountants and auditors, financial records processors, and tellers were isolated because of their special role at financial institutions. Office supervisors were separated from other administrative support occupations because of their higher salary rank.

8. Note that earnings profiles differ across the three industries. In banking, median weekly earnings by occupation range from $274 to $721, with an overall median of $427. In insurance, the overall level of earnings is slightly higher, with some differences in the ranking of occupations by earnings. More striking differences arise when we compare banks with securities firms: overall, median wages are about 50 percent higher than those at banks, with differences being particularly strong in the managerial and sales occupations.

9. In some cases, the responsibilities of workers in a given occupation vary across industry. For instance, accountants and auditors employed in the banking industry are more likely to be responsible for credit analysis than those employed in the insurance industry, whereas accountants and auditors employed in the insurance industry are more likely to have underwriting responsibilities. Although a more detailed occupational classification would reflect such differences, Table 1 is designed to reach a reasonable compromise between detail and tractability.

10. Moreover, the percentage of banking industry sales workers with college degrees substantially exceeds that of tellers, suggesting that the two occupations typically require different skill sets.

11. Commercial banks were acquiring thrift branches in these years.

12. The number of bank tellers is calculated by multiplying CPS teller observations by their CPS sampling weights using the 1983-85 and 1993-95 samples. The number of bank offices (1984 and 1994 figures) is from Rhoades (1996). The 20 percent drop in the number of tellers per office compares with a 10 percent drop in the number of branch employees per office, which fell from 37.7 in 1983-85 to 34.0 in 1993-95.

13. These figures are approximations only, because data on hours worked are unavailable for a small percentage of the 1993-95 sample.

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