

Financial Strategy Tools: Cohort Analysis

by Jon Pratt

A KEY ELEMENT OF STRATEGIC planning is gathering and analyzing information to understand changes in an organization's operating environment. How confident are we that we correctly perceive our organization's present and future situation? What's really going on here, and what are our options?

Unfortunately, the environmental scan phase of nonprofit strategic planning is often unsatisfactory. This process frequently generates lists of large issues and societal changes that may affect the organization, but fails to provide a sufficiently concrete picture of where an organization stands in its field. The challenge is to provide the people engaged in planning with sufficiently specific information that they feel confident they are basing decisions on evidence instead of impressions. This is especially important in the financial area, where nonprofits with five years of substantial growth can still feel that "money has never been tighter!"

This article presents a relatively quick method to profile an organization's financial makeup, and to create a comparison to a panel of similarly situated organizations. The Nonprofit Cohort Analysis Tool (NCAT) helps nonprofit staff and board members to visualize trends in their organization's

revenue streams and expenditures; identify candidates for revenue growth or expenditure savings; and gain an understanding of placement among peer organizations.

Many businesses track other firms in the same field, studying their moves and reacting to changes in their environment. In the business world this is called competitor analysis; in politics, opposition research; and in sports, scouting reports. Since nonprofits exist in both a competitive and cooperative environment (though often not in head to head competitive situations), it is appropriate to describe the nonprofit corollary to "competitor analysis" as "cohort analysis."

The benefit of cohort analysis arises from revelations gained through comparing your organization to a group of other nonprofits that share common characteristics and experiences over a defined period of time. These revelations include:

- How does our organization's growth compare to that of our counterparts? Are we keeping up? Missing out? Outperforming?
- How do our major revenue sources compare? Which types of funding are more or less important for our comparison group?
- How does our staff size, growth, compensation, and deployment compare?

- How do the portions of our expenditures devoted to occupancy, personnel, benefits, printing, travel, etc., compare to our counterparts?

- What strategies are our cohorts pursuing and how successful are these strategies? How are they handling pricing, research, marketing, communications, government relations, etc.?

- What does this tell us about what options are available to our organization to manage the issues that face us?

- How might our cohort organizations respond to changed strategies by our organization?

Since the people typically charged with strategic planning have limited time and resources, the practical challenge is to find economical ways to collect this kind of information on comparable organizations. This is where nonprofits have an information advantage over small businesses, because nonprofit tax filings are public and readily accessible on the Internet.

(Of course there is a great deal more that can be learned from studying counterpart organizations than publicly available financial information, including organization structure, new product strategies, client profiles and relationships, etc. The Nonprofit Cohort Analysis Tool is designed to produce a basic level of useful information quickly, which users can supplement with additional research, interviews and analysis.)

Cohort Financial Analysis Worksheet - CMJTS example.xls

Nonprofit Cohort Analysis Tool										Nonprofit Quarterly 2006	
Worksheet A											
		990 line	1	2	3	4	5	Total	Cohort Avg		
ORGANIZATION			MN Diversified Industries, Inc.	Workforce Dev. Inc.	Goodwill Industries, Inc.	HIRED, Inc.	Newgate Educ. & Research Ctr.				
LOCATION			St. Paul, MN	Rochester, MN	St. Paul, MN	Minneapolis, MN	Minneapolis, MN				
Revenues											
Direct Public Support	1a	\$	105,463	\$ 200,000	\$ 5,650,819	\$ 326,443	\$ 1,267,395	\$ 7,550,120	\$ 1,510,024.00		
Indirect Public Support	1b			\$ 15,223	\$ -	\$ -	\$ -	\$ 15,223	\$ 3,044.60		
Government Grants	1c			\$ 9,949,533	\$ 1,322,183	\$ 10,398,296	\$ -	\$ 21,670,012	\$ 4,334,002.40		
Program service revenue	2	\$	32,104	\$ 139,985	\$ 1,016,159	\$ 6,500	\$ 1,646,603	\$ 2,841,351	\$ 568,270.20		
Membership dues	3	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Interest	4	\$	10,611	\$ 1,433	\$ 50,263	\$ 1,564	\$ 497	\$ 64,368	\$ 12,873.60		
Dividends	5	\$	-	\$ -	\$ -	\$ -	\$ 2,558	\$ 2,558	\$ 511.60		
Net rental income	6c	\$	259,467	\$ -	\$ -	\$ -	\$ -	\$ 259,467	\$ 51,893.40		
Other investment income	7	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Net special event income	9c	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Profit from sales of inventory	10c	\$	-	\$ -	\$ 5,140,090	\$ -	\$ -	\$ 5,140,090	\$ 1,028,018.00		
Other revenue	11	\$	6,325,656	\$ -	\$ -	\$ 21,194	\$ -	\$ 6,346,850	\$ 1,269,370.00		
Total Revenue	12	\$	6,646,098	\$ 10,306,174	\$ 13,161,573	\$ 10,753,997	\$ 2,777,642	\$ 43,645,484	\$ 8,729,096.80		
Expenses											
Salaries and wages	26a	\$	1,798,074	\$ 3,858,351	\$ 6,872,340	\$ 4,607,254	\$ 363,956	\$ 17,499,975	\$ 3,499,995.00		
Compensation for officers	25a	\$	943,395	\$ 74,851	\$ 130,510	\$ 110,202	\$ 75,815	\$ 1,334,773	\$ 266,954.60		
Employee benefits	27a + 28a	\$	744,932	\$ 773,292	\$ 729,411	\$ 619,875	\$ 112,325	\$ 2,979,835	\$ 595,967.00		
Occupancy	36a	\$	-	\$ 611,387	\$ 1,647,436	\$ 343,891	\$ -	\$ 2,602,714	\$ 520,542.80		
Telephone	34a	\$	109,734	\$ 218,890	\$ -	\$ 213,827	\$ 8,236	\$ 550,687	\$ 110,137.40		
Postage/shipping	35a	\$	14,107	\$ 34,068	\$ -	\$ 44,911	\$ -	\$ 93,086	\$ 18,617.20		
Printing	38a	\$	23,276	\$ 11,333	\$ -	\$ -	\$ -	\$ 34,609	\$ 6,921.80		
Travel	39a	\$	77,109	\$ 173,110	\$ 291,334	\$ 55,343	\$ -	\$ 596,896	\$ 119,379.20		
Conferences	40a	\$	3,719	\$ 68,551	\$ 62,283	\$ -	\$ -	\$ 134,553	\$ 26,910.60		
Total Expenses	44a	\$	7,931,733	\$ 10,363,362	\$ 12,632,364	\$ 10,590,981	\$ 2,961,957	\$ 44,480,397	\$ 8,896,079.40		
Assets											
	21	\$	246,682	\$ 426,732	\$ 13,029,627	\$ 887,027	\$ 1,322,082	\$ 15,912,150	\$ 3,182,430.00		
Employees											
	90b		52	250	453	185	10	950	190		
Avg employee		\$	67,046	\$ 18,826	\$ 17,069	\$ 28,850	\$ 55,210	\$ 187,001	\$ 37,400		
Expenses 5 years prior		\$	3,849,556	\$ 6,063,733	\$ 7,400,350	\$ 4,543,324	\$ 1,440,510	\$ 23,297,473	\$ 4,659,494.60		
Growth (shrinkage)			106.0%	70.9%	70.7%	133.1%	105.6%	90.9%	90.9%		

Cohort Analysis Sheet A Cohort Analysis Sheet B

NONPROFIT COHORT ANALYSIS TOOL, SHEET A

By using IRS Form 990 information, which is intended to be accurate and uniform across organizations (carrying a perjury penalty for false reporting), it is possible to quickly populate the Cohort Analysis Tool with data from a comparison group. While there are legitimate concerns about the quality of financial reporting for some items on IRS Form 990, the lines used in this tool appear to be quite consistently reported.

For 501(c)(3) organizations, images of IRS Form 990 filings are readily available at GuideStar.org, the New Mexico Attorney General's Web site, and the Foundation Center Web site. IRS Form 990 returns for other 501(c) sections such as (c)(4) or (c)(6) are available by mail from the IRS using IRS Form 4506-A, which is available online.

The Nonprofit Cohort Analysis Tool (NCAT) is made up of two Excel spreadsheets with formulas to generate comparisons. NCAT is completed in a three step process:

Establish your cohort by selecting up to five organizations. The five organizations should be similar to your organization (and similar to one another) in most respects. Consider criteria such as budget and staff size, activity area, and constituency. The geographic location and funding sources of these potential cohort organizations may be the same as yours or different, depending on what seems most relevant for your situation. Your organization may want to benchmark itself against a national sample, or to high performers that may be larger or even in a different activity area. (They will need to be large enough to file IRS Form 990, and hopefully have filed it recently!)

Because nonprofits are often asked to define themselves in terms of their uniqueness (e.g. ABC is the only organization in its field specifically formed to accomplish X), there can be a natural reluctance to identify other organizations as being in the same group. And

yes, it's true, in the entire universe, there is just one organization exactly like yours. But with 1.3 million nonprofits in the U.S., there are plenty that can provide a strategic comparison. The process of identifying the cohort can itself serve a clarifying function for the planning group, surfacing and juxtaposing different views of the subject organization's essential characteristics.

To start out, brainstorm a list of 10-15 organizations that fit within the same activity area as your organization (e.g., performing arts, youth counseling, etc.) and in the same geographic area. With this larger list you can narrow it to the five that are closest to your organization in budget size. If you are stuck coming up with these organizations, you can look to nonprofit directories, association membership lists, grant lists of foundations that support the same activity, and Google and library searches.

Cohort Financial Analysis Worksheet - CMJTS example.xls									
Nonprofit Cohort Analysis Tool					Nonprofit Quarterly 2006				
Cohort Financial Analysis Worksheet B									
		990 line	Cohort Avg Amount	Central MN Jobs and Training Services	Variation	Cohort Proportion	Central MN Jobs & Training Svcs	Variation	
Revenues									
6	Direct Public Support	1a	\$ 1,510,024.00	\$ -	\$ 1,510,024.00	17.3%	0.0%	-17.3%	
7	Indirect Public Support	1b	\$ 3,044.60	\$ -	\$ 3,044.60	0.0%	0.0%	0.0%	
8	Government Grants	1c	\$ 4,334,002.40	\$ 8,998,463	\$ (4,664,460.60)	49.7%	99.7%	50.0%	
9	Program service revenue	2	\$ 568,270.20	\$ -	\$ 568,270.20	6.5%	0.0%	-6.5%	
10	Membership dues	3	\$ -	\$ -	\$ -	0.0%	0.0%	0.0%	
11	Interest	4	\$ 12,873.60	\$ 814	\$ 12,059.60	0.1%	0.0%	-0.1%	
12	Dividends	5	\$ 511.60	\$ -	\$ 511.60	0.0%	0.0%	0.0%	
13	Net rental income	6c	\$ 51,893.40	\$ -	\$ 51,893.40	0.6%	0.0%	-0.6%	
14	Other investment income	7	\$ -	\$ -	\$ -	0.0%	0.0%	0.0%	
15	Net special event income	9c	\$ -	\$ -	\$ -	0.0%	0.0%	0.0%	
16	Profit from sales of inventory	10c	\$ 1,028,018.00	\$ -	\$ 1,028,018.00	11.8%	0.0%	-11.8%	
17	Other revenue	11	\$ 1,269,370.00	\$ 39,488	\$ 1,229,882.00	14.5%	0.4%	-14.1%	
18	Total Revenue	12	\$ 8,729,096.80	\$ 9,029,021	\$ (299,924.20)				
Expenses									
20	Salaries and wages	26a	\$ 3,499,995.00	\$ 3,242,985	\$ 257,010.00	39.3%	35.6%	-3.7%	
21	Compensation for officers	25a	\$ 266,954.60	\$ 218,129	\$ 48,825.60	3.0%	2.4%	-0.6%	
22	Employee benefits	27a + 28a	\$ 595,967.00	\$ 918,816	\$ (322,849.00)	6.7%	10.1%	3.4%	
23	Occupancy	36a	\$ 520,542.80	\$ 240,230	\$ 280,312.80	5.9%	2.6%	-3.2%	
24	Telephone	34a	\$ 110,137.40	\$ 98,964	\$ 11,173.40	1.2%	1.1%	-0.2%	
25	Postage/shipping	35a	\$ 18,617.20	\$ 31,935	\$ (13,317.80)	0.2%	0.4%	0.1%	
26	Printing	38a	\$ 6,921.80	\$ 72,052	\$ (65,130.20)	0.1%	0.8%	0.7%	
27	Travel	39a	\$ 119,379.20	\$ 209,291	\$ (89,911.80)	1.3%	2.3%	1.0%	
28	Conferences	40a	\$ 26,910.60	\$ 32,469	\$ (5,558.40)	0.3%	0.4%	0.1%	
29	Total Expenses	44a	\$ 8,896,079.40	\$ 9,103,945	\$ (207,865.60)				
Assets									
30		21	\$ 3,182,430.00	\$ 366,113	\$ 2,816,317.00				
31	Employees	90b	190	79	111				
32	Avg employee expense		\$ 22,963	\$ 55,442	\$ (32,479.43)				
33	Expenses 5 years prior		\$ 4,659,494.60	\$ 5,664,135	\$ (1,004,640.40)				
34	Growth (shrinkage)		90.9%	60.7%	30.2%				

NONPROFIT COHORT ANALYSIS TOOL, SHEET B

Complete the NCAT Worksheets for the Cohort. Enter your five comparison organizations' information from IRS Form 990 on NCAT Worksheet A, and copy the calculated average figures onto the appropriate column on NCAT Worksheet B.

The NCAT Worksheet A asks for 13 revenue items from the 990 (and indicates selected lines 1a – 12) comprising: Direct Public Support; Indirect Public Support; Government Grants; Program service revenue; Membership dues; Interest; Dividends; Net rental income; Other investment income; Net special event income; Profit from sales of inventory; Other revenue; Total Revenue; 10 expense items (selected lines 26a – 44a): Salaries and wages; Compensation for officers; Employee benefits; Occupancy; Telephone; Postage/shipping; Printing; Travel; Conferences; Total Expenses; and finally, one asset item (21) and the number of employees (90b).

The five columns are for the five organizations, and the formula for cal-

culating the totals and averages are in place in the last two columns in the template spreadsheet at the *Nonprofit Quarterly* Web site at www.nonprofitquarterly.org/files/cohort-blank.xls.

Entering the data from the initial list of five organizations may reveal more information about outliers (which of these is not like the others?), so further reflection—and trial and error—may change your view of what constitutes a useful comparison group.

Complete the NCAT Worksheet for Your Organization. Enter your organization's information from IRS Form 990 on NCAT Worksheet B under the column ABC organization (feel free to insert your organization's name here), to the right of the Cohort Average Amount. The formulas for calculating the variation between the cohort average and your organization are in place in the last four columns of the worksheet.

Analyzing the Results. There can be

perfectly good reasons why organizations will choose to be dissimilar—this process is not meant to promote conformity but to make sure the organization's situation is properly understood by its leadership. The most illuminating comparisons for boards and managers can be trying to explain differences—why does our cohort have fewer staff, more earned income, or slower growth? In what ways could our organization benefit from emulating some of our cohort's revenue strategies, structures, or staffing?

Central MN Jobs and Training Services

Central Minnesota Jobs and Training Services is a \$9 million/year nonprofit serving an 11 county area in central Minnesota, primarily funded by state government. Since the pool of comparable organizations was limited, Central Minnesota Jobs and Training Services had to look outside of their immediate area to find their cohort in Minnesota: Minnesota Diversified Industries; Work-

force Development, Inc.; Goodwill Industries; HIRED, Inc.; and Newgate Education & Research Center.

All five organizations provide job training, work experience, and employment counseling—though in significantly different ways. The five organizations' budgets range from about \$3 million to \$12 million, which may be a broader range than would be ideal, but more importantly there are notable differences in revenue sources that could present valuable options. One of the five is also from a regional center, and four are from the Twin Cities metropolitan area.

So what does the cohort analysis have to say to Central Minnesota Jobs and Training Services?

Revenues: In this case, CMJTS own revenue mix appears to be similar to two members of the group, being 99.7% dependent on government funding, an uncomfortably high reliance on a single source. Three of its counterparts are receiving substantial amounts of funding from charitable contributions (direct public support), program service revenue (fees for services), profit from sales of inventory, as well as "other revenue" (which requires more research to explain). The obvious next step: study how these revenue streams work for the cohort organizations—how they are initiated and managed, resource requirements, and potential implications for CMJTS.

Expenditures: CMJTS is quite similar to its counterparts in its expenditures—the only significant difference being spending (3.7% less on salaries and wages but 3.4% more for employee benefits). The smaller amount for occupancy may be due to the lower rental or ownership costs of its rural location, though it may reflect lower grade facilities that make it less competitive for other sources of revenue.

Assets: CMJTS has substantially less assets than its counterparts, which can also be due to its rural location (lower land process) and ownership structure,

but this can make it more vulnerable over the long run.

Staffing: CMJTS has substantially fewer employees than its cohort average.

Growth: Over the prior five years, all of the organizations have shown healthy growth, though the cohort's 90.0% increase was greater than CMJTS's growth of 60.7%. Further analysis would show which of the program and revenue areas of the cohort are growing faster or more reliably than CMJTS, and would raise questions of fit, capacity and outlook.

For CMJTS, the cohort analysis gives the planning group a more tangible picture of their existing situation, to confront the sometimes brutal realities—not that it is easy or even necessarily possible to change.

Creativity, Conformity and Next Steps

When the differences are very small between the subject organization and the cohort, there may be few degrees of latitude—often the case in a very mature or highly regulated industry. Here, several interesting terms from organizational sociology are useful to describe the tendency of organizations in the same field to resemble one another over time. The forces of similarity can be conscious mimicry (*mimetic isomorphism*), compulsory regulation or funding requirements (*coercive isomorphism*), or just industry norms (*normative isomorphism*, in which the specialized knowledge and skills of professionals, backed by universities and spread by industry or professional associations and publications (such as the *Nonprofit Quarterly*) that span many organizations).

Obviously, the goal of the scanning phase of strategic planning is not conformity, but to learn more about the forces at work outside, and inside, the organization. The NCAT comparisons should broaden the thinking of the planning group, triggering questions about why the organization currently per-

forms the way it does, helping lay out options and alternatives and eliminate others.

While the main focus of NCAT is to understand an organization's position within its own industry group, maybe the whole industry is stuck in a rut. This process should not exclude also looking at organizations (or businesses) outside of your type to spark a different set of alternatives—from products to communications to structure. What can your organization learn from the successes (or failures) of completely different organizations and industries?

The principal advantage of the *Nonprofit Cohort Analysis Tool* is that the information can be assembled and analyzed relatively quickly and easily, giving a planning group a better grasp on the subject organization's situation. Since the NCAT results themselves are relatively gross, they invite further research into the specific structures and strategies adopted by other organizations, only limited by the planning group's time and creativity.

The *Nonprofit Cohort Analysis Worksheets* and the completed sample for Central Minnesota Jobs and Training Services are available at the NPQ Web site at www.nonprofitquarterly.org/files/cohort-blank.xls and www.nonprofitquarterly.org/files/cohort-example.xls.

(Another useful tool to flesh out this picture is the "Reliability-Autonomy Matrix," also developed by Jon Pratt for the *Nonprofit Quarterly* (most recently in the Winter 2005 issue), and available as an article reprint and an online spreadsheet from NPQ).

JON PRATT is a contributing editor to the *Nonprofit Quarterly*.

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