

**ECONOMIC IMPACT OF SMALL BUSINESS DEVELOPMENT CENTER
COUNSELING ACTIVITIES IN THE UNITED STATES: 2005-2006**

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EXECUTIVE SUMMARY

This report presents the results of the 11th national study of the economic impact of Small Business Development Center (SBDC) counseling activities in the United States. The report analyzes the changes in sales and employment, jobs and sales revenue maintained, and financing obtained by a sample of 6,799 established businesses and 3,724 pre-ventures that received five or more hours of counseling assistance (long-term clients) in 2005.

Data from 62 of the 63 SBDCs in the United States were used in the study. The 10,523 usable responses represented 18.3 percent of the clients that were sent questionnaires (57,386). The clients surveyed represented the entire long-term client population of the 62 Small Business Development Center programs in the United States that participated in the study. Analysis indicated that response bias did not appear to be a threat to the study.

The performance improvements of the responding sample in the year after receiving assistance were compared to the weighted average changes in performance of all businesses in the United States. The incremental improvements in the sample's performance -- over and above what they would have been had they performed like the average business -- were extrapolated across the entire long-term client population of the SBDC. To avoid overestimation of the impact of the SBDC program, only those clients who indicated that the SBDC's services were beneficial were used to calculate performance improvements. These performance improvements were then used to estimate the tax revenues generated for state and federal governments as a result of SBDC counseling. The tax revenues generated by the long-term clients were compared to the total cost of providing the services offered by the SBDC. To gain additional insights into the value of the services offered by the SBDC the financing obtained by clients as a direct result of SBDC assistance was analyzed.

The 62 participating SBDCs counseled 57,386 long-term clients in 2005: 31,613 (55.1%) were classified as established businesses and 25,773 (44.9%) were classified as pre-ventures. Most respondents (87%) indicated that the service received from the SBDC was beneficial. Of the pre-venture clients, it was estimated that about 53.5 percent started new businesses in 2005 or 2006.

Results indicate that, after adjustments, the long-term clients of the SBDC generated a total of approximately \$6.0 billion in sales and 67,233 new full time equivalent jobs as a result of the assistance received (see Table 1). The average cost of generating each job was \$2,866. Based on clients' assessments, we estimate that an additional \$7.1 billion in sales and 76,820 jobs were saved due to SBDC counseling.¹

The incremental performance improvements resulted in \$219.3 million in additional tax revenues from established businesses and \$261.4 million from pre-venture clients who started new businesses. This amounted to a total of approximately \$480.7 million in tax revenues, of which \$201.3 million went to the federal government and \$279.4 million went to the various states where the counseling was conducted. When compared to the cost of operating the 62 SBDCs that participated in the study (\$192.7 million), these counseling activities generated approximately \$2.49 in tax revenues for every \$1 spent on the entire program. It should also be noted that the tax revenues generated exceeded the direct cost of the counseling provided to long-term clients by a ratio of 6.57 to 1.00.²

¹ Tax revenues from jobs and revenues saved are not included in the estimates of impact reported in this study. However, we estimate that the tax revenues maintained as a consequence of the jobs and sales saved by clients totaled \$559.0 million. This amount was 2.90 times as large as the national budget for the SBDC program in 2005. Thus, if we include jobs and revenues saved, the combined benefit to cost ratio was 5.39 to 1.00. Furthermore, counting total jobs saved and created, the cost per job was \$1,337.

² If we consider **only** the 10,523 clients who responded to the study, the tax revenues these clients generated ($\$480.7 \text{ million} \times .183 = \88 million) were 20% greater than the long-term counseling budget. Furthermore, the **combined** impact of the jobs and revenues created **and** saved by those clients ($(\$480.7 + \$559) \times .183 = \$190.3 \text{ million}$) was 99% of the total budget of the 62 participating SBDCs, 70% greater than the total counseling budget, and 2.60 times larger than the portion of the budget spent on long-term counseling.

Approximately \$3.4 billion in financing was obtained by clients as a result of the counseling received (\$1.2 billion in SBA loans, \$1.6 billion in debt financing from other sources, and \$0.6 billion in equity financing). These figures suggest that every dollar expended on the operation of the SBDC program in the U.S. was leveraged by approximately \$17.45 in new capital raised from external sources.

TABLE 1
IMPACT OF SBDC COUNSELING ON THE UNITED STATES ECONOMY

	Established Firms (N = 31,613)	New Firms (N = 25,773)	All Firms (N = 57,386)
Aggregate sales impact	\$3,201,192,700	\$2,755,838,500	\$5,957,031,200
Aggregate employment impact	25,303 new jobs	41,930 new jobs	67,233 new jobs
Sales revenues maintained	\$7,052,702,300		
Jobs saved	76,820 jobs saved		
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State tax revenues generated	\$143,507,870	\$135,852,830	\$279,360,700
Federal tax revenues generated	<u>\$ 75,757,320</u>	<u>\$125,538,700</u>	<u>\$201,296,020</u>
Total tax revenues generated	\$219,265,190	\$261,391,530	\$480,656,720
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Cost of all SBDC operations (63 Centers)			\$194,561,078
Benefit to cost ratio	1.13 to 1.00	1.34 to 1.00	2.47 to 1.00
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Cost of SBDC operations (62 participating Centers)			\$192,664,119
Benefit to cost ratio	1.14 to 1.00	1.36 to 1.00	2.49 to 1.00
Cost per job generated			\$2866 per job
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Cost of all counseling			\$111,937,850
Benefit to cost ratio	1.96 to 1.00	2.34 to 1.00	4.29 to 1.00
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Cost of long-term counseling	\$ 45,446,767	\$ 27,760,586	\$ 73,207,353
Benefit to cost ratio	4.82 to 1.00	9.42 to 1.00	6.57 to 1.00
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SBA financing	\$ 667,644,110	\$ 534,960,880	\$1,202,604,990
Other debt financing	\$1,013,874,100	\$ 562,919,430	\$1,576,793,530
Equity financing	<u>\$ 409,574,860</u>	<u>\$ 172,619,300</u>	<u>\$ 582,194,160</u>
Total financing obtained	\$2,091,093,070	\$1,270,499,610	\$3,361,592,680
Financing "Leverage"	10.85 to 1.00	6.59 to 1.00	17.45 to 1.00

INTRODUCTION

This report describes the results of a study designed to assess the economic impact of the long-term counseling activities of the Small Business Development Center (SBDC) Program in the United States in 2005. Long-term clients are defined as those who received a minimum of five hours of counseling assistance from the SBDC. The economic impact of counseling activities was analyzed by comparing the increases in sales and employment experienced by SBDC clients between 2005 and 2006 with the average changes in performance for all businesses in the states and territories served by the program during this time period. The growth in sales and employment in excess of national averages was used to calculate the incremental federal and state tax revenues generated the year after counseling assistance was provided. The tax revenues generated by SBDC-counseled clients were then compared to the cost of the service to determine if it was cost effective.

To supplement this analysis, clients were also asked to estimate the number of jobs saved and sales revenues maintained as a result of the counseling. In addition to this, clients were asked to indicate whether the SBDC program had assisted them to obtain financing and if so, the amount of debt and equity financing they were able to obtain as a direct result of the counseling received from the SBDC.

Finally, a host of qualitative questions were asked concerning the availability of comparable assistance from private consultants and the quality of the counselors.

The remainder of this report describes the methodology and results of the study.

OVERVIEW: THE 2005-2006 NATIONAL IMPACT STUDY

In 2005, the 62 SBDCs (of 63) in the United States that participated in this study provided long-term counseling assistance to an estimated population of 57,386 clients, of which 31,613 were owners of established small businesses

and 25,773 were seeking to start new businesses (pre-ventures).³ The entire population of long-term clients of the 62 participating centers were sent two mailings of a questionnaire in the spring and summer of 2006. In the questionnaire clients were asked to evaluate the SBDC's services, provide their sales revenues and employment levels for 2005 and 2006, estimate jobs and sales revenues maintained, and indicate the amount of financing they were able to obtain that could be credited to the SBDC program (See Appendix 1).⁴ A total of 6,799 established business clients (21.5% response rate) and 3,724 pre-venture clients (14.4% response rate) returned questionnaires. This represented an 18.3 percent overall response rate for the clients sent questionnaires (10,523 of 57,386). Because of missing data and the decision to analyze only clients who indicated that the SBDCs' services were beneficial, the effective sample sizes for the impact estimates were 6,486 established business clients and 3,456 pre-venture clients.⁵

SAMPLE SIZE

The procedures described below were utilized to determine if the number of responding clients obtained from our sampling plan were sufficient to obtain a statistically reliable sample.

Confidence Interval of the Means. In order to determine if the number of respondents were actually sufficient to obtain a reliable and valid estimation

³ The SBDCs in the United States in 2005 include: Alabama, Alaska, American Samoa, Arizona, Arkansas, California-Merced, California-Northeastern, California-Los Angeles, California-San Diego (Chula), California-Norcal, California-Santa Ana Tri-county, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Guam, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, North Texas (Dallas), Texas-Houston, Northwest Texas (Lubbock), South Texas Border (San Antonio), Utah, Vermont, Virgin Islands, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. The Connecticut SBDC did not participate in the study.

⁴ The questionnaire also included some questions intended for other research projects. Those questions are not analyzed in this study nor are they included in Appendix 1.

⁵ These figures represent the number of clients who indicated the service received was beneficial. The effective sample sizes for the analyses conducted varied.

of the average changes in sales revenue and employment of SBDC clients, the following formula was used.

$$Z = (nE^2/s^2)^{1/2} \tag{1}$$

where: n = effective sample sizes (6,486 established, 3,456 pre-ventures).
s = standard deviation of the sample (standardized value = 1).
Z = confidence interval for the mean.
E = amount of error in the mean to be tolerated (5% of s).

With sample sizes of 6,586 and 3,456 and a tolerated error of .05 standard deviation, it was determined that the confidence interval of the sales and employment means for both the pre-venture and established business respondents were reliable at better than the 99 percent level (99.7% and 99.9%, respectively). In other words, we were more than 99 percent confident that our sample means were no more than one-twentieth of one standard deviation from the population means for the 62 centers that participated in this study.

SAMPLE VALIDATION

Although we surveyed the entire population of long-term clients, when a mail survey is conducted there is no way to ensure that 100 percent of those surveyed will respond to the questionnaire. Therefore, it is necessary to conduct statistical tests to ensure that respondents are representative of the population, there is a minimum likelihood of response bias, and that the data are reliable. The following procedures were used.

Representativeness. Each center was asked to provide demographic information (gender and ethnic background of client, industry in which business competes) for all clients surveyed and for all respondents (See Appendix 2).⁶ Comparisons and Chi-square goodness-of-fit tests using standardized data indicated that both the pre-venture and established business respondents were proportionally representative of the population with respect to all three dimensions.

⁶ The comparative statistical analysis of the population and respondents were conducted with data from 55 state centers. The remaining state SBDCs did not provide complete or usable demographic data for this analysis.

Response Bias. Two mailings of the questionnaire were conducted. Respondents were divided into early and late responders according to which questionnaire they responded. This procedure made it possible to investigate the issue of response bias. T-tests indicated that there was no significant difference between respondents to the first or second mailings for established business clients in terms of their sales revenue or employment, sales or jobs saved, financing obtained, or their evaluation of the SBDC's services. Early and late responding pre-venture clients were statistically equal on most dimensions. However, late responders were more likely to report that the SBDC assisted them in obtaining financing than early responders. Since later responders could be expected to be more similar to non-respondents than earlier responders are, we find no evidence of an upward bias in the data used to estimate the performance of the client population.

Reliability. The reliability of the questionnaire was assessed by a point biserial correlation analysis comparing clients' perception of whether the SBDC's services were beneficial and their (1) evaluations of the knowledge and expertise of the counselors, (2) working relationships with the counselors, and (3) willingness to recommend the SBDC to others. The results of the respective comparisons were statistically significant at better than the .001 for both established business clients ($r = .60$; $r = .61$; $r = .70$) and pre-venture clients ($r = .59$; $r = .60$; $r = .69$). Alpha levels comparing perceptions of service benefits and recommendations ($\alpha = .81$ and $.80$) on the one hand and the questions regarding consultants on the other ($\alpha = .91$ and $.90$), were also well above the acceptable ranges for both established business and pre-venture clients, respectively. Thus, clients' responses to the questionnaire appeared to be reliable.

DATA ANALYSIS METHODS

The methods for estimating the economic impact of SBDC counseling services are described below.

EXISTING BUSINESSES

For existing businesses who received at least five hours of assistance, the changes in sales and employment between the year in which counseling was received (2005) and the year after counseling was received (2006) was calculated. Two part-time employees were considered equivalent to one full-time employee.⁷

Rates of sales and employment growth for the existing clients were compared with the weighted average growth rates in the home states or territories of the centers on each measure. Statewide averages were weighted according to the number of clients served by each center as a proportion of the total number of clients served by the SBDC system. This procedure guards against potential biases that might exist if the number of clients counseled across the states and territories varied in proportion to their populations.

The difference between the growth rate of clients and weighted average growth rates for all businesses was used to estimate the incremental or marginal changes in sales and employment growth of the sample.⁸ Only clients who indicated that the SBDC's services were beneficial were used to calculate incremental growth rates.⁹ The incremental growth rates were multiplied by the average sales and employment of the respondents for the year before counseling was received.

Weighted averages of each tax figure (sales taxes, state and federal income taxes) were calculated based on the proportion of clients served by each state or territory compared to the total number of clients served by the centers

⁷ All employment data reported in this study refers to full time equivalent jobs.

⁸ GSP growth among private industries between 2005 and 2006 was used as a surrogate for average state sales growth rates. These data were obtained from the Bureau of Economic Analysis. Average state employment growth rates were from the Bureau of Labor Statistics. The average growth rates were computed using a weighting scheme that took into account the long-term client population of the SBDCs.

⁹ Although reasons for client dissatisfaction may be unrelated to the quality of the advice (e.g., it was not what the client wanted to hear), it did not seem appropriate to count the performance improvements of clients who did not feel they received value from the SBDC.

to guard against potential bias that might exist if counseling intensity differed by state or territory.¹⁰ The weighted average sales tax rate was reduced by 25 percent to reflect the fact that not all businesses pay sales taxes even though some of their sales may eventually "pass through" to the final consumer. This adjustment may still overestimate taxes paid on sales. However, this approach is more realistic and conservative in its assessment of sales tax contributions than no adjustment, and still captures the added value of those businesses whose sales are not directly taxed. Furthermore, any overestimate must be weighed against the fact that other tax sources are not measured in this study (e.g., payroll taxes, corporate income taxes, social security payments).

Federal income tax data for 2005, the most recent year available, were obtained from the Internal Revenue Service's *Statistics of Income Bulletin*, (Spring, 2007). The estimated median (based on an analysis of tax brackets), rather than the average, was used to be conservative and to better reflect the types of employment opportunities offered by our respondents. The median state income tax paid per return for each state was estimated by dividing the median federal income tax paid per return by the average federal income tax paid per return within the state and multiplying that proportion by the average state income tax paid per return. A weighted national average was then computed.¹¹

Adjusted weighted sales tax rates and personal income taxes (state or territory and federal) were multiplied by the average incremental improvements in sales and employment respectively to arrive at the value added figures. All these numbers were then multiplied by the total number of existing business clients after adjusting for the proportion of the respondents who indicated the

¹⁰ All 62 participating state centers supplied sales tax data and state income tax data. The average tax rates were computed using a weighting scheme that took into account the long-term client population of the SBDCs. Federal tax data was also available for all 62 participating centers.

¹¹ Each responding SBDC provided state or territory income tax data for the most recent year available. In most cases this was 2005 or 2006; however, some states were only able to obtain data for 2004. Since experience shows that these numbers do not vary much from year to year it is unlikely that this had a material impact on the results.

SBDC's services were beneficial. The formula for the calculations can be expressed as follows:

$$\text{Average Growth} \times \text{Tax Rate} \times \text{Proportion of Clients Satisfied w/Service} \times \text{Total Number of Clients} = \text{Total Tax Revenues} \quad (3)$$

DATA ANALYSIS METHODS: PRE-VENTURE CLIENTS

Similar procedures were used for pre-venture clients who received at least five hours of assistance, with the following exceptions. First, as pre-ventures had no previous sales or employees from which to calculate growth, the raw averages were used to assess economic impact. Second, this average was adjusted to account for the total number of pre-venture clients who failed or did not start a business between 2005 and 2006 (about 46.5% of the sample). This adjustment was made as follows:

$$\text{Average Performance} = \text{AS} \times (\text{NS}/\text{NP}) \quad (4)$$

where: AS = average performance (sales, employment) of successful pre-ventures
 NS = number of successful pre-ventures
 NP = number of pre-ventures (successful + unsuccessful)

Once this adjustment was made, the average performance of the pre-venture respondents was multiplied by the corresponding tax rates, the proportion of pre-ventures who judged the SBDC's services to be beneficial, and the total estimated number of pre-venture clients. This formula is shown below.

$$\text{Average Performance} \times \text{Tax Rate} \times \text{Proportion of Clients Satisfied w/Service} \times \text{Total Clients} = \text{Total Tax Revenues} \quad (5)$$

BENEFIT OF SBDC SERVICES TO COST

The tax revenue generated by the SBDC was divided by the total cost of operating the 62 participating centers to arrive at a benefit to cost ratio. We also compared the tax impact with the entire SBDC budget for the full complement of 63 centers. The total operating budget of the SBDC, per data supplied by the Small Business Administration for fiscal year 2005, was used for this calculation. This was a conservative approach since only part of the budgets of the centers was used for counseling, and some of that amount was spent on short-

term rather than long-term clients.¹² Thus, the calculations compare the impact of assistance, which consumed a total of 38 percent of the United States SBDC program's budget with the amount spent on the entire SBDC operation.

Therefore, to provide additional insights we also made cost benefit comparisons with the cost of the counseling for the participating centers, as well as the portion of their counseling budget spent on assisting long-term established and pre-venture clients.

OTHER ANALYSES

Evaluation of Quality of Counseling Services. Clients were asked whether the services provided by the SBDC were beneficial. This question was used to determine whether clients' performance improvements might have been affected by SBDC counseling. As noted above, the performance improvements of responding clients were adjusted to account for the proportion that believed the SBDC's services were beneficial when extrapolating the results to the full population of clients.

Clients were also asked to assess the knowledge and expertise of counselors assigned to their cases as well as their working relationship with the counselors. Clients evaluated their counselors' knowledge/expertise and working relationship on a five-point scale: (1) poor, (2) below average, (3) average, (4) above average, and (5) excellent. These questions provide further evidence of the quality of the counseling services. In the main, however, these questions were used to assess the reliability of the question concerning whether the SBDC's services were beneficial.

Comparison with Private Consultants. Clients were asked if they could have obtained assistance of the same quality from a private consultant at a price they could afford. A primary rationale of government-funded programs is that there is a paucity of private sector assistance available to resource poor

¹² Estimates of counseling budgets were made from data supplied by 60 centers and then applied to the entire budget for all 62 participating centers.

entrepreneurs. A major criticism of public programs is, on the other hand, that they may squeeze out private sector initiatives by providing unfair, subsidized competition. By analyzing the availability of alternative sources of assistance, this question made it possible to test whether the rationale for the SBDC program is valid, as well as whether criticisms about unfair competition are warranted.

Revenue and Job Retention. Established business clients were asked to estimate the number of full- and part-time jobs that were saved as a result of the assistance received from the SBDC. We also asked clients to estimate the amount of previous sales revenue maintained as a result of SBDC assistance. The average responses were then extrapolated to the population of established business clients.

Financing. Established business and pre-venture clients were asked to estimate the amounts of SBA guaranteed loans, other loans, and equity financing obtained directly as a consequence of SBDC counseling activities. To remain conservative, only those clients who indicated that the SBDC assisted them to obtain financing were used for this analysis. Extrapolation to the entire client population was made after adjusting for the proportion of clients who indicated the SBDC assisted them in raising capital.

RESULTS

The results of the analysis of the counseling services provided by the SBDC to established business and pre-venture clients are presented below.

ESTABLISHED BUSINESSES

Perceptions of the Quality of Counseling. Of the 6,486 clients who provided usable responses to the service evaluation question, 87 percent indicated that the SBDC's services were beneficial. Furthermore, clients gave a rating of 4.31 out of a possible 5.00 on the knowledge and expertise of their counselors and a rating of 4.28 on their working relationship with the counselors (See Table 2). Finally, 93 percent of the 6,457 responding

established business clients indicated that they would recommend the SBDC's services to other business owners.

Comparison with Private Consultants. Results indicated that 84 percent of the responding clients (4,186 of 4,983) believed that it would not have been possible for them to obtain private consulting services of a similar quality at a price they could afford.

Economic Impact Estimates. Table 3 compares the 2005 and 2006 sales and employment levels of established small business clients. As this Table shows, these clients reported an average increase in sales of \$179,584 (from \$961,925 in 2005 to \$1,141,509 in 2006). There was also a marked increase in the number of individuals employed by clients in 2006 compared to levels in 2005 (9.21 versus 8.14).

Table 4 compares the growth in sales and employment between 2005 and 2006 of SBDC clients with the growth experienced by the average business in the United States. As shown, the sales growth rate of established business clients was larger than that experienced by the average business in the U.S. (18.7% versus 6.6%). In addition, employment levels of established clients increased by 13.1 percent compared to 1.8 percent for U.S. businesses in general.

The overall impact estimate for established business clients suggests that the SBDC's services led to a total of approximately \$219.3 million in new tax contributions: approximately \$143.5 million went to state governments and \$75.8 million went to the federal government (See Table 5). As shown in Table 6, these additional tax revenues were 13 percent more than the operating budget of the entire SBDC program and 14 percent more than the operating budget of the 62 centers that participated in the study. Furthermore, established clients generated tax revenues that were 1.96 times greater than the total counseling budget of the participating SBDCs; these revenues also represented a return of \$4.82 for every dollar those SBDCs spent on established business clients who received long-term assistance.

Revenue and Job Retention. To supplement the impact estimates we also asked established clients if the SBDC helped them save jobs and retain existing revenues. On average, clients estimated that the SBDC program was responsible for saving \$223,095 in revenues and 2.43 full-time equivalent jobs. In total, this amounted to \$7.1 billion in revenues retained and 76,820 jobs saved.¹³

Financing Obtained. According to the respondents, 23 percent of established business clients were assisted in preparing to seek financing. Those clients obtained an average of \$287,594 in capital, of which \$91,823 came from SBA loans, \$139,441 came from other forms of debt financing, and \$56,330 came from equity financing. Extrapolations indicate that \$667.6 million in SBA loans, \$1.0 billion in other debt financing, and \$409.6 million in equity financing (approximately \$2.1 billion in total) was raised by clients with the help of the SBDC. This suggests that the total expenditure of tax dollars on the SBDC were leveraged by public and private financing at a ratio of 10.85 to 1.00 for long-term established business clients alone.¹⁴

Our estimates also suggest that of the 31,613 established business clients served 3,211 received SBA guaranteed loans as a consequence of SBDC assistance. Furthermore, 3,683 obtained other loans and 1,457 obtained equity financing.

PRE-VENTURE CLIENTS

Perceptions of the Quality of Counseling. Of the 3,456 pre-venture clients who provided an evaluation of the SBDC's services, 87 percent felt the counseling was beneficial. In addition, clients gave a rating of 4.24 out of a possible 5.00 on their counselors' knowledge and expertise and a rating of 4.20 their working relationship with the counselors (See Table 7). Finally, 92 percent of the 3,489 clients who responded to this question indicated that they would recommend the SBDC's services to other entrepreneurs.

¹³ It should be noted again that revenues retained and jobs saved were not figured into the benefit to cost estimates.

¹⁴ This analysis was based on the 1,447 respondents who indicated that the SBDCs assisted them in preparing to obtain financing and provided data on financing.

Comparison with Private Consultants. A total of 85 percent of the responding clients (2,216 of 2,607) believed that it would not have been possible for them to obtain private consulting services of a similar quality at a price they could afford.

Economic Impact Estimates. After adjusting for unsuccessful clients, we calculated that an average of \$122,905 in sales and 1.87 new jobs were created per pre-venture client.¹⁵ As Table 8 indicates, these new employees generated tax payments of approximately \$261.4 million to the state and federal governments (\$135.9 million to the state and \$125.5 million to the federal).

When compared to the cost of operating all of the SBDCs in the United States, the tax revenues generated by pre-venture clients returned \$1.34 for every dollar expended to operate the entire SBDC system. Compared to the operating budget of the 62 SBDCs that participated in the study, the benefit to cost ratio was 1.36 to 1.00. Furthermore, the tax revenues generated exceeded the cost of all counseling activities by a ratio of 2.34 to 1.00. Finally, the tax revenues from pre-venture clients were 9.42 times the amount spent on long-term pre-venture counseling (See Table 9).

Financing Obtained. According to the responses, 24 percent of all pre-venture clients received assistance from the SBDC in preparing to obtain financing. The average raised was \$86,486 in SBA loans, \$91,006 in other sources of debt financing, and \$27,907 in equity financing for a total of \$205,399. Extrapolating to the population suggests that a total of \$535.0 million in financing from SBA loans, \$562.9 million from other sources of debt, and \$172.6 million in financing from equity investors was raised. The grand total of approximately \$1.3 billion suggests that each tax dollar expended on the SBDC was leveraged by \$6.59 in public and private financing for new ventures.¹⁶

¹⁵ Given that only 53.5% of all responding clients started businesses, the estimate of sales and employment for start-ups would be \$229,729 and 3.50, respectively.

¹⁶ This analysis includes the 833 pre-venture clients who indicated that the SBDCs assisted them in obtaining financing and provided data on financing.

Finally, our estimates suggest that of the 25,773 pre-venture clients served 2,495 received SBA guaranteed loans as a consequence of SBDC assistance. Furthermore, 2,547 obtained other loans and 1,277 obtained equity financing.

SUMMARY AND CONCLUSIONS

Results of this study suggest that the SBDC Program makes an important contribution to the economic development of the United States. Our analysis indicated that the SBDC's long-term clients added \$6.0 billion in incremental sales and 67,233 new jobs to the nation. The latter number suggests that the cost of generating a new job through investment in the SBDC was \$2,866 per job. In addition, our estimates suggest that 76,820 jobs were saved and \$7.1 billion in sales revenues were maintained as a result of the counseling. Finally, 53.5 percent of all pre-venture clients started businesses within one year of receiving counseling.

Estimates suggest that the one-year tax benefits accruing as a consequence of the performance improvements of SBDC-counseled long-term clients returned \$2.49 for every dollar spent on the 62 (of 63) SBDCs that participated in the study.¹⁷ Furthermore, our estimates indicate that \$6.57 was returned for each dollar expended on counseling long-term clients.

Finally, our estimates indicate that approximately \$3.4 billion in capital was raised by clients as a direct result of the assistance received from the SBDC. This suggests that each dollar expended on the SBDC Program was later leveraged by approximately \$17.45 in debt and equity capital.

The numbers presented in this report are only estimates based on responses to a questionnaire. It is possible that the respondents were not representative of the population of clients, factors such as social desirability bias may have inflated the estimates, or that "self-selected" SBDC clients tend to exceed the

¹⁷ As noted in the Executive Summary, we estimate that the tax revenues maintained as a consequence of the jobs and sales saved by clients due to SBDC counseling amounted to \$559 million. This amount was 2.90 times as large as the budget for the 62 participating SBDCs. Furthermore, counting total jobs saved and created, the cost per job was \$1,337.

sales and employment growth rates of "average" businesses in the United States for reasons unrelated to the counseling provided. It is also possible that some of the gains of the clients were not net gains to the economy.

Impact methodologies are always susceptible to potential problems of obtaining adequate control groups, the possibilities of response bias or self-selection bias, and displacement effects. Nevertheless, the tests conducted for bias and reliability, as well as the use of weighted statewide comparison groups, suggests that the results are accurate enough to conclude that the SBDC program in the United States makes a positive contribution to the economy. Furthermore, although the numbers presented in this report are only estimates, their magnitude suggests that even if we greatly overestimated the economic impact of the SBDC our overall conclusions would remain the same. Again, as noted in the Executive Summary, if we consider **only** the 10,523 clients who participated in the study, the tax revenues these clients generated ($\$480.7 \text{ million} \times .183 = \88 million) were 20% greater than the long-term counseling budget. Moreover, the **combined** impact of the jobs and revenues created **and** saved by the responding long-term clients ($\$1.04 \text{ billion} \times .183 = \190.3 million) was 99% of the total budget of the 62 participating SBDCs, 70% greater than the total counseling budget, and 2.60 times larger than the portion of the budget spent on long-term counseling.

In addition, the estimates reported herein do not consider (1) the other programs the SBDC offers (e.g., workshops, seminars), (2) the value added to the operations of short-term clients, (3) the continuing tax revenues generated by long-term clients after the year of analysis, (4) the many failures SBDC assistance helps stave off and the individuals with unviable business ideas it discourages, (5) the other tax revenue sources such as corporate taxes, property taxes, unemployment taxes, social security payments, or (6) any multiplier effects of a healthier small business sector. Taking all these factors into

account, we believe that the results presented in this study tend to be conservative.

From a public policy standpoint, the implication of this research is that the SBDC makes an important contribution to the economies of the United States. As this study shows, the SBDC plays an important role in the U.S. economy. By assisting established small businesses, SBDCs across the United States help create new job opportunities in growing firms and contribute to the retention of jobs in small companies trying to turn around or reorient their businesses. The SBDC work with pre-venture clients helps individuals identify and initiate viable new business ventures that invigorate the economy.

In conclusion, the evidence presented in this report indicates that SBDC-assisted clients (1) generate sales and employment opportunities that return more tax revenues to state and federal governments than the cost of operating the Program, (2) believe that the SBDC contributed substantially to the performance improvements of their businesses, (3) are able to save jobs and sales revenues that might have otherwise been lost, and (4) are better able to raise capital to support the start-up and growth of their businesses. It is believed that this is ample justification for the continuation and proliferation of the SBDC Program.

TABLE 2
QUALITATIVE EVALUATIONS OF THE COUNSELING PROVIDED TO
ESTABLISHED BUSINESS CLIENTS BY THE SBDC PROGRAM

Knowledge and Expertise of Counselors

	Number	Percentage
5. Excellent	3439	54.0%
4. Above Average	1878	29.5%
3. Average	770	12.1%
2. Below Average	131	2.1%
1. Poor	150	2.4%
	<hr/>	<hr/>
Totals	6368	100.0%

Average = 4.31

Clients' Working Relationship with Counselors

	Number	Percentage
5. Excellent	3649	57.2%
4. Above Average	1449	22.7%
3. Average	902	14.1%
2. Below Average	188	2.9%
1. Poor	187	2.9%
	<hr/>	<hr/>
Totals	6375	100.0%

Average = 4.28

TABLE 3
2005-2006 AVERAGE SALES AND EMPLOYMENT OF ESTABLISHED CLIENTS
WHO INDICATED THAT SBDC ASSISTANCE WAS VALUABLE

	2005	2006	Average Change
Sales *	\$961,925	\$1,141,509	+ \$179,584 18.7%
Employment **	8.14 jobs	9.21 jobs	+ 1.07 jobs 13.1%

* Based on analysis of the 4,270 clients that provided usable sales data for both 2005 and 2006 and indicated SBDC services were beneficial.

** Based on analysis of the 5,351 clients that provided usable employment data for both 2005 and 2006 and indicated SBDC services were beneficial.

TABLE 4
CHANGES IN SALES AND EMPLOYMENT BETWEEN 2005-2006: SBDC
SBDC ESTABLISHED BUSINESS CLIENTS VERSUS AVERAGE U.S. BUSINESS

	Average % change in small business sample	Average % change all U.S. firms	Average incremental change in small business sample	
	_____	_____	percent _____	aggregate _____
Sales	+18.7%	+ 6.6%	+12.1%	+ \$116,393
Employment	+13.1%	+ 1.8%	+11.3%	+ 0.92 jobs

TABLE 5
INCREMENTAL TAX REVENUES ADDED TO STATE AND FEDERAL GOVERNMENTS
AS A RESULT OF SBDC COUNSELING OF ESTABLISHED BUSINESS CLIENTS

STATE TAX REVENUES

	Tax	X	Tax	X	% Clients	X	# of Long	=	Total Tax
	Base		Rate		Valuing		Term Clients		Revenues
					Service				Generated
Sales	116,393		.040*		.87		31,613		\$128,047,710
Employment	0.92		\$611**		.87		31,613		<u>\$ 15,460,160</u>
Total									\$143,507,870

FEDERAL TAX REVENUES

	Tax	X	Tax	X	% Clients	X	# of Long	=	Total Tax
	Base		Rate		Valuing		Term Clients		Revenues
					Service				Generated
Employment	0.92		\$2994***		.87		31,613		\$ 75,757,320
									\$219,265,190
TOTAL INCREMENTAL STATE AND FEDERAL TAX REVENUES									

* Figure represents 75 percent of the weighted average state sales tax rate in the United States in 2006 (5.3%).

** Figure represents the weighted average of the estimated state income taxes paid per return by median income filers in 2006.

*** Figure represents the weighted average of estimated federal income taxes paid per return by median income filers in 2005.

TABLE 6
THE COSTS AND BENEFITS OF SBDC COUNSELING IN THE UNITED STATES:
ESTABLISHED BUSINESSES

Total incremental State and Federal tax revenues Added by long-term established business clients	\$219,265,190
Cost of operating all SBDC programs	\$194,561,078
Benefit to cost ratio	1.13 to 1.00
Cost of operating participating SBDCs	\$192,664,119
Benefit to cost ratio	1.14 to 1.00
Cost of all counseling*	\$111,937,850
Benefit to cost ratio	1.96 to 1.00
Cost of counseling long-term established business clients**	\$ 45,446,767
Benefit to cost ratio	4.82 to 1.00

* The weighted average cost of counseling was estimated to be 58.1 percent of the SBDCs' total operating budgets in 2005.

** Long-term counseling provided to established businesses was approximately 40.6 percent of the SBDCs' total counseling budgets in 2005.

TABLE 7
QUALITATIVE EVALUATIONS OF THE COUNSELING PROVIDED TO
PRE-VENTURE CLIENTS BY THE SBDC PROGRAM

Knowledge and Expertise of Counselors

	Number	Percentage
5. Excellent	1763	51.4%
4. Above Average	1009	29.4%
3. Average	478	13.9%
2. Below Average	82	2.4%
1. Poor	96	2.8%
	<hr/>	<hr/>
Totals	3428	100.0%

Average = 4.24

Clients' Working Relationship with Counselors

	Number	Percentage
5. Excellent	1824	53.5%
4. Above Average	806	23.6%
3. Average	547	16.0%
2. Below Average	120	3.5%
1. Poor	113	3.3%
	<hr/>	<hr/>
Totals	3410	100.0%

Average = 4.20

TABLE 8
INCREMENTAL TAX REVENUES ADDED TO STATE AND FEDERAL GOVERNMENTS
AS A RESULT OF SBDC COUNSELING OF PRE-VENTURE CLIENTS

STATE TAX REVENUES

	Tax Base	X	Tax Rate	X	% Clients Valuing Service	X	# of Long Term Clients	=	Total Tax Revenues Generated
Sales	122,905*		.040†		.87		25,773		\$110,233,540
Employment	1.87 **		\$611††		.87		25,773		<u>\$ 25,619,290</u>
Total									\$135,852,830

FEDERAL TAX REVENUES

	Tax Base	X	Tax Rate	X	% Clients Valuing Service	X	# of Long Term Clients	=	Total Tax Revenues Generated
Employment	1.87		\$2994†††		.87		25,773		<u>\$125,538,700</u>

TOTAL INCREMENTAL STATE AND FEDERAL TAX REVENUES \$261,391,530

* Based on analysis of the 2,586 clients that provided usable sales data for 2006 and indicated SBDC services were beneficial.

** Based on analysis of the 2,948 clients that provided usable employment 2005 and indicated SBDC services were beneficial.

† Figure represents 75 percent of the weighted average state sales tax rate in the United States in 2006 (5.3%).

†† Figure represents the weighted average of the estimated state income tax paid per return by median income filers in 2006.

††† Figure represents the weighted average of estimated federal income taxes paid per return by median income filers in 2005.

TABLE 9
THE COSTS AND BENEFITS OF SBDC COUNSELING IN THE UNITED STATES:
PRE-VENTURES

Total incremental State and Federal tax revenues Added by long-term pre-venture clients	\$261,391,530
Cost of operating all SBDC programs	\$194,561,078
Benefit to cost ratio	1.34 to 1.00
Cost of operating participating SBDCs	\$192,664,119
Benefit to cost ratio	1.36 to 1.00
Cost of all counseling*	\$111,937,850
Benefit to cost ratio	2.34 to 1.00
Cost of counseling to long-term pre-venture clients**	\$ 27,760,586
Benefit to cost ratio	9.42 to 1.00

* The weighted average cost of counseling was estimated to be 58.1 percent of the SBDCs' total operating budgets in 2005.

** Long-term counseling provided to pre-ventures was approximately 24.8 percent of the SBDCs' total counseling budgets in 2005.

APPENDIX 1
SMALL BUSINESS DEVELOPMENT CENTER IMPACT STUDY QUESTIONNAIRE

ALL INFORMATION WILL BE KEPT CONFIDENTIAL

1. When was your business started?

Year Started _____ Never Started

2. What was the major activity of your business or proposed business in 2005?
Please check one.

- Retailing (food, apparel, autos, etc.)
- Services (motel, laundry, law, etc.)
- Wholesale (distributor, etc.)
- Manufacturing
- Construction (all general, and other contractors)
- Other (please specify) _____

3. Not counting yourself, how many full-time employees (35 hours or more per week) and part-time employees (less than 35 hours per week) did you have at the end of each of the following years that you were in business? *If you were not in business just write N/A in the appropriate blank(s).*

2005 _____ full-time employees
2006 _____ full-time employees

2005 _____ part-time employees
2006 _____ part-time employees

4. Please estimate the number of jobs saved as a result of the assistance received from the SBDC.

Existing Full-time jobs saved _____
Existing Part-time jobs saved _____

5. What were your total sales revenues for each of the following (calendar) years you were in business? *If you were not in business during one of these years write N/A (not applicable) in the appropriate blank(s).*

2005 \$ _____
2006 \$ _____

6. Please estimate the amount of sales revenues maintained as a result of the SBDC's assistance.

Existing revenues maintained \$ _____

7. Did the SBDC assist you in obtaining financing?

- Yes No

DEMOGRAPHIC DATA FORM #2

THE FOLLOWING INFORMATION SHOULD BE PROVIDED **ONLY** FOR CLIENTS (FIVE HOURS OR MORE OF COUNSELING) WHO RESPONDED TO THE SBDC IMPACT STUDY SURVEY.

1. Total number of responding clients (5 hours or more)

Pre-venture _____

Established businesses _____

2. Type of Business (number)

	PRE-VENTURES	EXISTING
Retail	_____	_____
Service	_____	_____
Wholesale	_____	_____
Manufacturing	_____	_____
Construction	_____	_____
Other	_____	_____

3. Gender of clients (number)

	PRE-VENTURE	EXISTING
Male	_____	_____
Female	_____	_____
Male/Female	_____	_____

4. Ethnic background (number)

	PRE-VENTURE	EXISTING
White	_____	_____
Other	_____	_____

CENTER: _____

CONTACT PERSON: _____

PHONE/FAX/E-MAIL: _____

DEMOGRAPHIC DATA FORM #3

THE FOLLOWING INFORMATION SHOULD BE PROVIDED AS IT PERTAINS TO YOUR SBDC.

- 1. Counseling hours*
 - a. Total number of counseling hours provided to all clients (regardless of hours) in 2005 _____ hours
 - b. Total number of counseling hours provided to clients in 2005 who received five 5 or more hours of assistance of LONG-TERM PRE-VENTURES _____ hours
LONG-TERM EXISTING CLIENTS _____ hours
- 2. Proportion of total budget allocated to counseling [**counseling hours (from 1a above) + travel hours/ total hours worked by all counselors**] in 2005 _____ %
- 3. State sales tax rate in 2006 _____ %
- 4. Average state personal income tax paid per return in 2006** \$ _____

* *Counseling Hours:* For the purpose of the national impact studies conducted under the auspices of the ASBDC, counseling hours shall include all time spent by counselors in the following activities: (1) direct one-on-one contact with clients in person or by telephone, (2) preparation for client meetings, (3) research activities on behalf of clients, (4) correspondence with clients by mail, fax, or email.

** If data for this time period in not available please provide data for the most recent year and indicate that time period.

CENTER: _____

CONTACT PERSON: _____

PHONE, FAX, EMAIL: _____