



**Impact Study of Entrepreneurial Dynamics:
Office of Entrepreneurial Development
Resource Partners'
Face-to-Face Counseling**

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Prepared by:

Concurrence Consulting Group, Inc.

The Rice Coleman Ross Group

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I. Introduction

This report presents an analysis of the economic impact of the U.S. Small Business Administration's (SBA's) Office of Entrepreneurial Development (OED) Resource Partner's face-to-face counseling programs. The OED manages and leverages three major resources: Small Business Development Centers (SBDCs), SCORE, and Women Business Centers (WBCs). Although each resource program's goals and target audiences may vary, a common mission is shared between them: to provide business advice, mentoring and training to small businesses and entrepreneurs. This study is focused on assessing outcomes of these programs.

The objective of this study is to measure the impact OED Resource Partners' counseling programs have on the creation, financial development and survival of client firms. This year's study of initial impact reports on clients that were counseled during the last fiscal quarter of 2012 and the follow-up impact reports on clients that were counseled during the last fiscal quarter of 2011 and that responded to the 2012 initial impact survey and again to the 2013 survey, which comprises a brief follow-up.

This is the tenth year of this study. Although the goals and key components of the study have remained the same; the methodology and the analyses have been adapted to reflect changing needs of SBA's OED and its Resource Partners and their clients. Initially the survey was conducted via mail and on paper; for several years now, it has been conducted via web and email. Originally, the initial client sample size was smaller and two years of client follow-up were conducted; in order to increase the number of follow-up respondents and the reliability of the follow-up analysis, the initial sample size was increased and the follow-up study reduced to one year, which has achieved the desired result of a larger number of follow-up respondents.

Two other important changes were made: the study was enhanced to assess the impact of the number of hours of counseling received on the financial outcomes that clients achieved; and the analysis has been increasingly focused on ferreting out the significant impacts of counseling

on those outcomes. These two modifications have been particularly successful in assessing the impact of the number of hours of counseling and other impacts on financial outcomes. These outcomes are explored in detail in this year's report.

In addition, we would like to highlight a few recent trends over the past three years of study. Three of these are particularly noteworthy. First, the growth rate in revenues and employment for small business clients who received counseling from OED Partners has outpaced the rate of growth in the economy overall, measured in terms of changes in GDP. This is particularly impressive during a recessionary period.

A second trend relates to the effects of counseling. Since collecting data on hours of counseling, we have considerable evidence that those small businesses that have had more than 3 hours of counseling have higher one-year survival rates than firms that receive less counseling. In addition, these surviving small businesses that have received more than 3 hours of counseling tend to realize significantly higher growth in revenues and employees than those who have had less hours of counseling. These findings have been consistent across years and across several different analytical approaches.

Thirdly, the positive impacts of counseling have similar benefits to small businesses regardless of the characteristics of the firm owners. In particular, there have been no consistent, significant differences in perceived benefits of counseling, survival or financial performance based on gender, race, ethnicity, age, geographic location, or veteran status.

A few additional trends over the past three years merit mention. The first is that, although the economic environment has been difficult, client reported revenues and numbers of employees have been relatively consistent with total average revenues for 2010 clients at \$637,200, for 2011 clients at \$653,755, and for 2012 clients at \$636,789. The number of employees grew however, from 4 for 2010 clients to 7.77 for 2012 clients. Client business segments have shifted somewhat with a growth in nascent firms comprising 26% of 2010 respondents to 29% and 33% for 2011 and 2012 firms. Concomitantly the number of In-Business firms, the largest group, has decreased from 54% for 2010 clients to 51% and 49% for 2011 and 2012 firms.

There have also been shifts in the client demographic from 68% White among 2010 clients to 72% White among 2012 clients. Black/African American clients have also increased from 11% among 2010 clients to 14% among 2012 clients. And clients in 2012 are younger than those in 2010 and 2011. The number of clients in age groups under forty-five increased, whereas the number of clients in all age groups 45 and over decreased.

This year a much larger number of clients reported that their counseling was useful at 80% compared to 2010 clients at 73% and 2011 clients 76%.

These trends and the findings in this report offer strong evidence that the OED and its Resource Partners deliver and continue to enhance counseling services that provide effective business advice to small businesses and entrepreneurs.

This report consists of the following sections:

I. Introduction

II. Executive Summary

III. Methodology

IV. 2012 Initial Client Responses

V. Analysis of Impacts – Initial and Follow-up Clients

VI. Appendices

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II. Executive Summary

The purpose of this report is to summarize key findings from analyses of SBA OED Resource Partner client surveys of initial 2012 clients and 2011 clients that completed follow-up surveys in 2013. Clients taking the survey for the first time represent diverse demographics in terms of age, race, and ethnicity; firms were also diverse in terms of location, industry, and size. Clients reported the highest levels of “usefulness” of counseling in this year’s survey than they have reported in recent years.

Additionally, in-depth analyses examined the effects of counseling assistance on financial performance, job creation, the probability of new business startup, and the probability of survival over a 1-year period. These findings, taken together, suggest that clients that receive three or more hours of counseling have higher financial performance and employment growth rates, and they are more likely to start new businesses than clients who received less than three hours of counseling. There is also evidence that the type of technical assistance affects these outcomes, although there are some differences in perceived benefits versus actual changes in revenues and employment. For example, while clients perceive that assistance with business plans and general management have a significant impact on sales, profits and hiring, it is assistance with loan packages that has a significant positive effect on actual changes in revenues and employment. Perceived benefits of counseling in general did not vary based on firm size, but in terms of actual increases in revenues and employment, firms with higher revenues definitely benefitted more than their smaller counterparts. Other differences based on firm characteristics, such as age, firm size, business stage, industry, additional business training, and owner demographics are mixed and vary depending on the outcome. These findings suggest that SBA OED Resource Partner counseling has significant economic benefits.

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III. Methodology

Research Questions

The following questions are the focus of this year's study. These questions focus on the demographic characteristics of SBA's OED Resource Partner face-to-face counseling clients and their firms, the type of assistance clients received and the perceptions of impact of that assistance. These questions are also posed to examine the effects of OED Resource Partner counseling on financial performance, job creation, the probability of new business startup, and the probability of survival over a 1-year period.

1. What is the demographic, financial, and business profile of firms that utilize the face-to-face counseling services of SBA's OED Resource Partners (SBDC, SCORE, WBC)?
2. Is there a relationship between the face-to-face counseling services provided by OED Resources Partners (SBDC, SCORE, WBC) and the client's perception of the usefulness and value of the services/assistance received?
3. Is there a relationship between the face-to-face counseling services provided by OED Resource Partners (SBDC, SCORE, WBC) and the client's decision to start a business?
4. Is there a relationship between the services/assistance provided by OED Resource Partners (SBDC, SCORE, WBC) and the client's decision to implement and/or change management and/or marketing practices?
5. What are the effects of SBA OED Resource Partners' face-to-face counseling on financial performance?
6. What are the effects of SBA OED Resource Partners' face-to-face counseling on job creation?
7. What are the effects of SBA OED Resource Partners' face-to-face counseling on new business creation?
8. What are the effects of SBA OED Resource Partners' face-to-face counseling on firm survival?
9. How does financial performance of SBA OED Resource Partners' clients compare to other small businesses and the macro-economy overall?

Data Collection

The initial impact assessment was based on responses to web and telephone surveys administered in March of 2013. The Initial Survey (Appendix I) asks clients to assess their counseling experience and captures client and firm characteristics. The distribution of responses to the Initial Survey can be found in Appendix II. The Follow-up Survey (Appendix III) is a much shorter survey and focuses on revenues and employment. The response distribution to this survey can be found in Appendix IV.

Table 1 below depicts the survey sample of initial clients. Client records (64,470) were collected from SBDC, SCORE and WBC centers throughout the country. The web survey was fielded in March of 2013 to the usable sample (58,137) representing clients who received face-to-face counseling by an OED Resource Partner in last quarter of 2012. The usable sample excludes incorrect email entries and opt-out requests. The web survey invitation letter included the official SBA logo and each letter was signed by the responsible OED Program Directors. Telephone surveys were conducted for those clients who, after three reminder emails, either did not respond to the web survey or whose email addresses had been eliminated from the usable sample. The total number of responses was 9,459 for an overall response rate of 16%.

Table 1

<i>Initial Impact Study of 2012 Clients</i>						
<i>Resource</i>	<i>Stratified Sample</i>	<i>Usable Sample</i>	<i>Web Surveys Received</i>	<i>Telephone Surveys Received</i>	<i>Total Surveys Received</i>	<i>Response Rate</i>
SBDC	34,183	29,957	3,101	2,359	5,460	18%
SCORE	27,010	25,183	1,400	2,070	3,470	14%
WBC	3,277	2,997	214	315	529	18%
Total	64,470	58,137	4,715	4,744	9,459	16%

This overall response rate of 16% is comparable to last year’s response rate of the same study and to rates found in other surveys of entrepreneurs. For example, Aldrich and Baker (2000)

found that nearly a third of surveys of entrepreneurs had response rates below 25%.¹ In another example, the National Federation of Independent Business (NFIB) had a response rate of 20% in its Small Business Economic Trends survey conducted in June of 2010, but its response rate had declined to 15 % in its June 2013 survey.²

The responses provided a statistically representative sample for OED Resource Partners overall. To determine if the sample size was sufficient, reported sales revenues were assessed. Results indicated that the initial sample of 2012 clients is sufficiently large for accuracy of 2012 sales within plus or minus \$70,168 and 2011 sales within plus or minus \$62,535 in total reported annual sales revenues at a 99% confidence level. This assumes a normal distribution of annual revenues with a standard deviation of \$2,175,205 and \$1,938,571 for 2012 and 2011, respectively. (Mean revenues for 2011 were \$364, 695 and \$453,438 for 2012).

Table 2 below depicts the survey sample of 2011 follow-up clients, who responded to the 2012 Initial Survey and received face-face-counseling in the last quarter of 2011 (15,821) and who responded to the Follow-up Survey. The web survey was fielded to the usable sample and telephone surveys were conducted for those clients who either did not respond to the web survey or current email addresses. The total number of responses was 3,467 for an overall response rate of 24%.

Table 2

<i>Follow-up Impact Study of 2011 Clients</i>						
<i>Resource</i>	<i>Stratified Sample</i>	<i>Usable Sample</i>	<i>Web Surveys Received</i>	<i>Telephone Surveys Received</i>	<i>Total Surveys Received</i>	<i>Response Rate</i>
SBDC	8,263	7,433	1,860	117	1,977	27%
SCORE	7,217	6,931	1,158	218	1,376	20%
WBC	341	312	75	39	114	37%
Total	15,821	14,676	3,093	374	3,467	24%

¹ Aldrich, Howard E. and Ted Baker (2000), "Blinded by the Cites: Has there been any progress in entrepreneurship research?" in *Entrepreneurship 2000*, ed. Donald L. Sexton and Raymond L. Smilor, Chicago: Upstart Publishing, p. 377-400.

² William K. Dunkelberg and Holly Wade, "NFIB Small Business Economic Trends" NFIB.com. July 2010 and June 2013.

It is important to note that for both surveys that computer generated client codes replaced client names. For the analysis of follow-up clients, client codes were matched to client codes from last year's initial responses providing matched pairs for analysis.

Analysis

Initial 2012 Client Survey Responses

2012 Client responses to the Initial Survey provide an analysis of client attitudes toward their counseling experiences and client perceptions of the impact of that counseling had on their businesses. Analyses of initial responses of 2012 clients in Section IV of this report included the following methods: basic descriptive statistics, frequency distributions, and cross tabulations.

We used basic descriptive statistics for continuous variables such as annual sales revenues. For this year's study, revenue and employment calculations were completed using mean data rather than median data, which is more a more appropriate measure for firms the size of those in this study.

We used frequency distributions for Likert scales, where respondents answered on a scale of 1 to 5. Cross-tabulations were used to compare responses across OED Resource Partners, business segments, and hours of counseling received. (Refer to Appendix I: Initial Survey and Appendix II: Initial Survey Questions and Response Distribution.)

Analysis of 2011 and 2012 Clients

Section V of this report includes multiple regression analyses of the perceived effects of counseling reported by 2012 initial and 2011 follow-up clients. These include the impact of explanatory variables, such as characteristics of counseling, firms, and owners on the following outcomes: perceived increases in sales, perceived increases in hiring, and perceived assistance with starting a business. In order to model perceived assistance with starting a business, a dichotomous variable, we used a logistic regression procedure to estimate the probability that a business was started as a result of assistance. These models, including the outcome and explanatory variables for each, are described below.

In order to measure the effects of counseling on increases in sales based on respondents from the Initial Survey, we focused on the perceived impact of counseling on increases to sales. To indicate the perceived impact of counseling on increases to sales, initial survey respondents rated their level of agreement on a scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) regarding the impact the counseling experience had on their ability to increase sales.

In order to measure the effects of counseling on employment, we focused on the perceived impact of counseling on hiring new staff and the difference in the number of employees reported for 2011 versus 2012. To indicate the perceived impact of counseling on hiring new staff, respondents rated their level of agreement on a scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) regarding the impact the counseling experience had on their ability to hire new staff.

Additionally, data from the Initial survey were also used to determine the effects of SBA OED Resource Partners' face-to-face counseling on new business creation. Survey respondents were asked "*Did you decide to go into business as a result of the assistance you received from your counselor?*", and responded either as a "yes" or "no."

Explanatory variables (also known as predictor variables or independent variables) included measures of the counseling experience, characteristics of the businesses, as well as demographic characteristics of the owners. To study these effects of counseling on firms, several different measures of the counseling experience were used as independent variables in the regression models. The amount of time spent in counseling was captured through a self-reported measure for hours of counseling using the following categories: 0 – 2 hours, 3 – 5 hours, 6 – 10 hours, and more than 10 hours. Other counseling variables included: the type of assistance (e.g., business plans, marketing plans, pricing strategy, and cash flow analysis), Resource Partner, and whether there had been additional assistance received such as online or classroom business training.

In addition to counseling variables, measures of firm characteristics were also used as independent variables in the models. Firm characteristics included the previous year's revenues and total employees (part-time + full-time), where these values are greater than

zero³. We also included two interaction terms: revenues by hours of counseling and employees by hours of counseling. These are intended to capture differential effects of hours of counseling for large versus smaller firms.⁴ Other independent variables included firm age, measured as the number of years since the firm began business operations, industry, geographic location (i.e. urban, rural, or suburban), and business stage (Nascent, Start-up, or In-Business).

Owner characteristics included age captured in the following categories: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75+, as well as veteran status, gender (male or female), and race/ethnicity⁵. Owner education was captured in a set of ordinal responses ranging from “some high school” to “Graduate/professional degree.”

Detail results of these regression models are reported in Appendices V and VI to this report. For each outcome or dependent variable, a “full” model is presented that includes the entire set of independent or explanatory variables. Based on this full model, we estimated an additional, “final” version focused on a reduced set of independent variables that proved to be statistically-significant in the full model.⁶ The purpose of the final version is to present a more parsimonious model while maintaining explanatory power.

³ The natural logarithm was used to transform these two variables to adjust their positively skewed distributions towards normality, and to reduce the influence of extreme values. Thus, interpretations of these variables should be in terms of a 1% change rather than a 1 unit change. It is important to note that the natural log is undefined at the value of zero. Therefore all analyses using this transformation only include the range of 1 or greater.

⁴ An interaction term is created by multiplying more than one independent variable, and is intended to measure concurrent effects of multiple variables rather than independent effects of each. In this case, Revenues, Employment, and Counseling Hours are included in the models separately as well as Revenues x Counseling Hours and Employment x Counseling Hours. The resulting coefficients indicate whether the effects of Counseling Hours on Outcomes differ for larger versus smaller firms. Previous research on OED Resource clients has shown differences in outcomes based on firm size. See, A.P. Bryant, K. May, V. Perry, and G. Solomon (2013), “Survival of the Fittest: Technical Assistance, Survival and Growth of Small Businesses,” *Technovation*, available online 12 Aug 2013, <http://www.sciencedirect.com/science/article/pii/S0166497213000643>.

⁵ Respondents indicating Hispanic or Latino did not respond to the question on “race”.

⁶ Statistical significance in the case of regression models is determined by testing the null hypothesis, i.e., there is no significant effect of the independent variable on the dependent variable. Parameter estimates highlighted in this report were statistically-significant at the $p < 0.05$ level, which means that the probability that the null hypothesis is actually true is less than 0.05. In practical terms, a statistically-significant predictor variable means that it has a significantly positive or negative effect on the outcome variable, e.g. counseling hours has a significant, positive effect on 2012 revenues.

Based on each final model, we present a chart showing the relationship between estimated outcomes (e.g. perceived sales increases) and counseling hours. These estimates are based on the Least Squares Mean (a.k.a. the LS Mean), which can be defined as a linear combination (sum) of the estimated effects (e.g., means) from a linear model.⁷

Section V of this report also includes multiple regression analyses used to examine the effects of counseling on measures of actual financial performance and survival using data from the follow up survey on initial 2011 clients. These analyses show the impact of explanatory variables, such as characteristics of counseling, firms and owners, on the following outcomes: 1-year change in sales revenues, 1-year change in employment, and survival over the period from 2011 to 2012. These models, including the outcome and explanatory variables for each, are described below.

In order to examine the effects of counseling and other explanatory variables on financial performance using data from the follow-up survey, we focused on the dollar amount of revenues reported in 2012 relative to the dollar amount of revenues reported in 2011. Because revenue amounts have been transformed to their natural logarithms, interpretations of the effect of independent variables on the 2012 revenue variable should be considered in terms of change in percentage rather than dollar amount.

In order to examine the effects of counseling and other explanatory variables on employment using data from the follow-up survey, we focused on the number of employees reported in 2012 relative to the number of employees reported in 2011. Because revenue amounts have been transformed to their natural logarithms, interpretations of the effect of independent variables on the 2012 employment variable should be in terms of a percentage change rather than changes in number of employees.

In order to examine the effects of counseling and other explanatory variables on *1-year survival*, we focused on whether or not the firm has gone out of business since initially

⁷http://support.sas.com/documentation/cdl/en/statug/63347/HTML/default/viewer.htm#statug_glm_sect016.h

surveyed in 2012, based on the response to the question, “*Did you Close or Sell Your Business?*” Respondents answered either “yes” or “no” to this question.

Since 1-year survival is a dichotomous variable, we used a variation of a logistic regression model to estimate the probability that the firm has gone out of business since originally surveyed in 2012.⁸

Explanatory variables included measures of the characteristics of the counseling, characteristics of the business, and demographic characteristics of the owner. In terms of counseling characteristics, the amount of time spent in counseling was indicated as < 3 hours or 3+ hours.⁹ Other counseling variables include: the type of assistance (e.g. assistance with business plans, marketing plans, pricing strategy, cash flow analysis), and the Resource Partner.

Firm characteristics included the previous year’s revenues and total employees as reported in the follow-up survey. Other firm characteristics were extracted from the previous year’s initial survey and included as independent variables in the models. These included the previous year’s revenue and total employees (part-time + full-time), where these values are greater than zero.¹⁰ We also included two interaction terms: revenues by hours of counseling and employees by hours of counseling. These were intended to capture differential effects of hours of counseling for large versus smaller firms.¹¹ Other independent variables included firm age, measured as the number of years since the firm began business operations, industry, geographic location (i.e. urban, rural, or suburban), and business stage (Nascent, Start-up, or In-Business).

⁸ Singer and Willett recommended using the complementary logarithmic-logarithmic (a.k.a. clog-log) transformation, as opposed to the standard logistic (also known as ‘logit’) transformation, when “events unfold in continuous time, but your information about event occurrence is restricted to discrete-time intervals.” (Singer, J.D. and Willett, J.B., 2003. *Applied Longitudinal Data Analysis*. Oxford University Press, Oxford. Page 426). Results of this estimation can be interpreted in terms of a hazard ratio rather than an odds ratio.

⁹ Unlike the self-reported hours of counseling variable used in the initial survey, these categories of hours were provided by the OED Resource Partner in the initial provision of a random sample of their 2011 clients.

¹⁰ This variable was also transformed by the natural logarithm. All analyses using this transformation are restricted to the range of 1 or greater.

¹¹ An interaction term is created by multiplying more than one independent variable, and is intended to measure concurrent effects of multiple variables rather than independent effects of each. Details are provided in Footnote 4 in the Methodology section.

Owner characteristics included age captured in the following categories: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75+, as well as veteran status, gender (male or female), race/ethnicity. Owner education was captured in a set of ordinal responses ranging from “some high school” to “graduate/professional degree.”

Results of these regression models are reported in Appendices V and VI. For each outcome or dependent variable, a “full” model is presented that includes the entire set of independent or explanatory variables. Based on this full model, we estimated an additional, “final” version focused on a reduced set of independent variables that proved to be statistically-significant in the full model. The purpose of the final version is to present a more parsimonious model while maintaining explanatory power.

In the cases of continuous outcome variables such as perceived sales increases or 2012 revenues, we include bar charts depicting the relationship between estimated outcomes and counseling hours. These estimates are based on the Least Squares Mean (LS Mean), which can be defined as a linear combination (sum) of the estimated effects (e.g., means) from a linear model.¹²

Limitations

There are several limitations that should be considered when interpreting the results presented in this report. These limitations are inherent in the research design and methodology.

- Many of the measures included in the survey are attitudinal and based on client perceptions. All items, including actual revenue and employment amounts, are self-reported. Thus, there are few objective measures that can be used to assess actual client performance or to make comparisons with other data sources.
- Only a small number of 2011 clients (n=36) reported having closed or sold their businesses by the time of the follow-up survey. This limits our ability to measure the impact of several key explanatory variables on survival.

¹² SAS/STAT (R) 9.22 User’s Guide, LS Means, http://support.sas.com/documentation/cdl/en/statug/63347/HTML/default/viewer.htm#statug_glm_sect016.htm.

- There were approximately six months between clients receiving counseling and the administration of the survey. This is beneficial for assessing client attitudes about their experience, but limiting for measuring firm growth. Start-up and very small firms need time to incubate.

IV. 2012 Client Responses to Initial Survey

Demographics

SBA OED Resource Partner 2012 clients represent diverse demographic groups and their composition, depicted in Tables 3 – 7 below, has been basically consistent over time since 2006.¹³

Table 3

	<i>Gender of Business Owner</i>			
	SBDC	SCORE	WBC	Total
Female	47%	47%	82%	49%
Male	53%	53%	18%	51%

Table 4

	<i>Veterans Status of Business Owner</i>			
	SBDC	SCORE	WBC	Total
Veteran	9%	10%	7%	10%
Service Disabled Veteran	3%	3%	2%	3%
Reservist	<1%	<1%	<1%	<1%
National Guard Member	<1%	<1%	1%	<1%
Non-Veteran	87%	86%	90%	87%

Table 5

	<i>Ethnicity of Business Owner</i>			
	SBDC	SCORE	WBC	Total
Hispanic or Latino	8%	9%	12%	9%
Not of Hispanic or Latino Origin	92%	91%	88%	91%

Table 6

	<i>Race of Business Owner</i>			
	SBDC	SCORE	WBC	Total
American Indian or Alaskan Native	2%	2%	3%	2%
Asian	3%	5%	3%	4%
Black/African American	12%	16%	28%	14%
Native Hawaiian/Pacific Islander	1%	1%	1%	1%
White	75%	69%	55%	72%

¹³Concurrence Consulting Group, Inc., "Supporting America's Small Businesses: Trend Analysis of Impacts of SBA's OED Resource Partners' Face-to-Face Counseling 2006 – 2009 Clients" Unpublished. December 2011.

Table 7

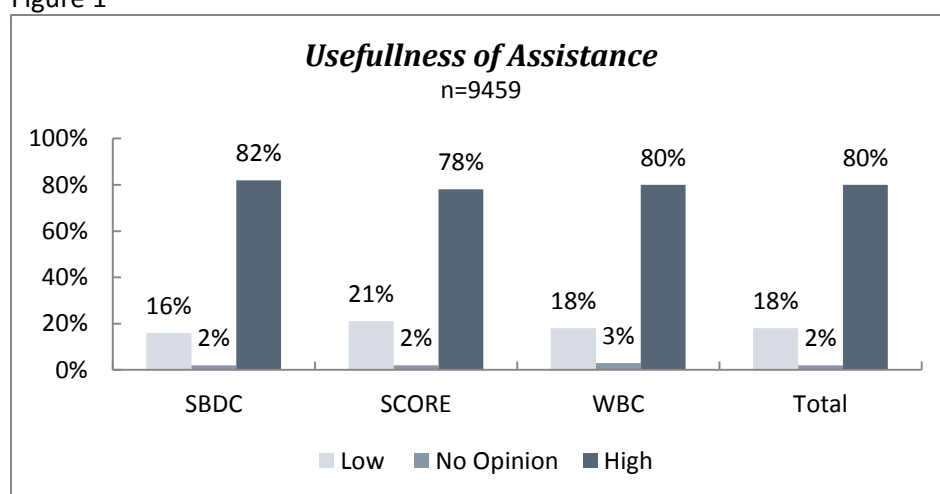
<i>Age of Business Owner</i>				
	SBDC	SCORE	WBC	Total
18-24	3%	3%	2%	3%
25-34	19%	19%	21%	19%
35-44	24%	23%	29%	24%
45-54	28%	26%	29%	27%
55-64	20%	21%	16%	20%
65-74	6%	7%	4%	6%
75+	1%	1%	1%	1%

Client Experience and Perception of Outcomes

2012 clients, surveyed for the first time in March 2013, responded to a series of questions regarding their experience and perceived outcomes from the counseling assistance they received in the last quarter of 2012.

Figure 1 below shows that 80% of clients found their counseling experience to be “useful” or “very useful” based on a Likert scale of 1 (not useful) – 5 (very useful). This usefulness rating is the highest it has been in over the previous six years.¹⁴

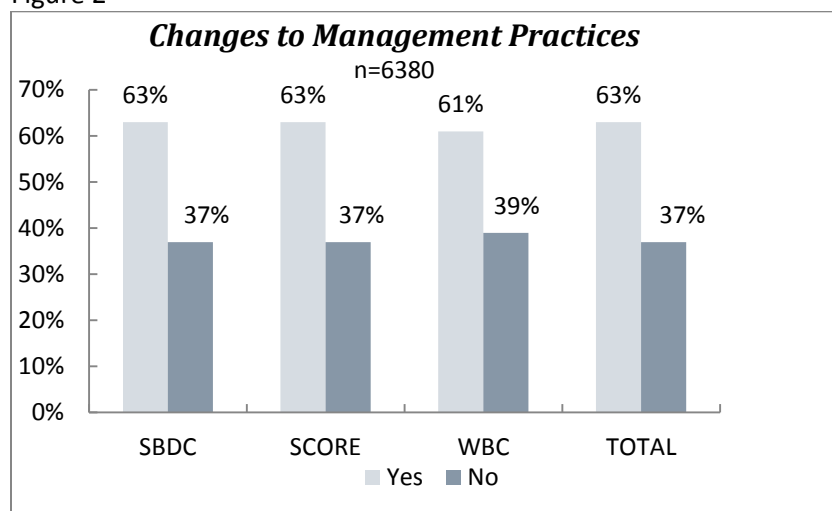
Figure 1



¹⁴ Concentrance Consulting Group, Inc., “Supporting America’s Small Businesses: Trend Analysis of Impacts of SBA’s OED Resource Partners’ Face-to-Face Counseling 2006 – 2009 Clients” Unpublished. December 2011.

Sixty-three percent of 2012 clients, who were in business in March of 2013, reported that they made changes to their management practices as a “result of the assistance” they received (Figure2). The percentage of clients who made management changes was reasonably consistent for each Resource Partner.

Figure 2



The top changes in management practices (Table 7 below) were essentially the same as in previous years.

Since the outset of this study in 2004, clients have consistently rated the assistance they received with developing a business plan as the top change they made to their management practices. Since slightly over 51% of Resource Partner clients are either Nascent (not yet In-Business) or Start-up (In-Business less than one year), the focus on developing a business plan would be particularly beneficial to those clients and supportive of SBA’s mission to help “Americans start, build and grow businesses.”¹⁵

Development of a marketing plan is the next most highly rated change, cited by 45% of clients in this recent survey. Client focus on marketing plans mirrors concerns small businesses cited

¹⁵ http://www.sba.gov/about-sba/what_we_do/mission

in the 2013 Wells Fargo/Gallup Small Business Survey Topline¹⁶ report. When asked “What do you think is the most important challenge facing you as a small business owner today?” Clients cited among others, regulation, the economy, taxes, and healthcare as top concerns, but leading the responses by 11 percentage points at 21% was “Attracting customers/targeting business opportunities/finding new business”. Resource Partners’ clients focus on developing marketing plans appears to reflect the focus of other small businesses.

Table 8

Changes to Management Practices¹⁷					
	SBDC	SCORE	WBC	Total	
Business Plan	55%	52%	56%	54%	} Top Five
Marketing Plan	45%	44%	46%	45%	
General Management	34%	37%	36%	35%	
Cash Flow Analysis	30%	28%	31%	29%	
Financial Strategy	28%	29%	30%	29%	
Pricing Strategy	24%	27%	28%	25%	
Promotional Plan	23%	24%	27%	24%	
Web Based Strategy	20%	19%	25%	20%	
Feasibility Plan	16%	17%	14%	16%	
Loan Package	18%	8%	19%	15%	
Hiring Plan	10%	10%	12%	10%	
Production Plan	9%	11%	11%	10%	
Purchasing Strategy	10%	9%	11%	10%	
Staff Training Plan	7%	6%	7%	7%	
Distribution Plan	7%	8%	7%	7%	
International Trade	4%	4%	1%	4%	
Close/Sell Business	5%	5%	6%	5%	
Other	18%	19%	21%	18%	

¹⁶ Source: *The Wells Fargo/Gallup Small Business Survey Topline* which reports on small-business owners’ current and future perceptions of their business financial situations. Results are based on telephone interviews with a random sample of 603 small business owners, with \$20 million or less of sales or revenues, conducted in April, 2013. The data are weighted to be nationally representative. The report is available at <https://wellsfargobusinessinsights.com/File/Index/y1o9AemryEuwEcD31jekgA>.

¹⁷ Respondents were able to select “all the applied.”

From a different perspective (Table 9), 2012 clients were asked to assess the “impact” their counseling experience had on their businesses in the categories list below. In alignment with “development of marketing plans”, three of the top five impacts of counseling cited by clients were as follows: revising marketing strategy, increasing sales, and expanding products and services.¹⁸

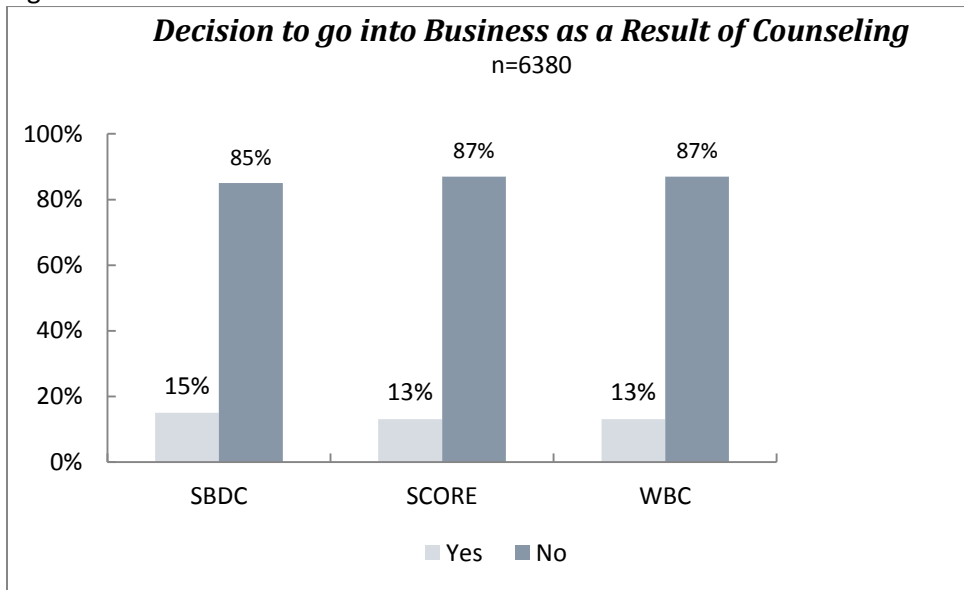
Table 9

<i>(5= Strongly Agree, . . . , 1= Strongly Disagree)</i>	<i>Business Impacts of Counseling</i>				
	SBDC	SCORE	WBC	Total	
Revise my marketing strategy	3.60	3.54	3.50	3.57	} Top Five
Improve my cash flow	3.34	3.21	3.35	3.30	
Increase my sales	3.34	3.21	3.30	3.29	
Expand my products/services	3.27	3.18	3.33	3.25	
Increase my profit margin	3.26	3.14	3.15	3.22	
Retain current staff	3.09	2.98	2.98	3.05	
Hire new staff	2.96	2.81	2.88	2.91	
Acquire a bank loan	2.96	2.70	2.90	2.87	
Acquire a SBA guarantee loan	2.80	2.60	2.86	2.74	
Acquire a government Contract	2.71	2.59	2.65	2.67	
Acquire a SBA Disaster loan	2.60	2.56	2.55	2.58	

¹⁸ Clients responded to a Likert scale form 1- 5, with 1 indicating strong disagreement with a statement such as “the assistance I received helped me improve my cash flow.” Since respondents replied to each statement, the chart above ranks the type of assistance most received. It does not indicate a level of value ascribed to the statement nor does it necessarily indicate type of assistance for which the client sought assistance.

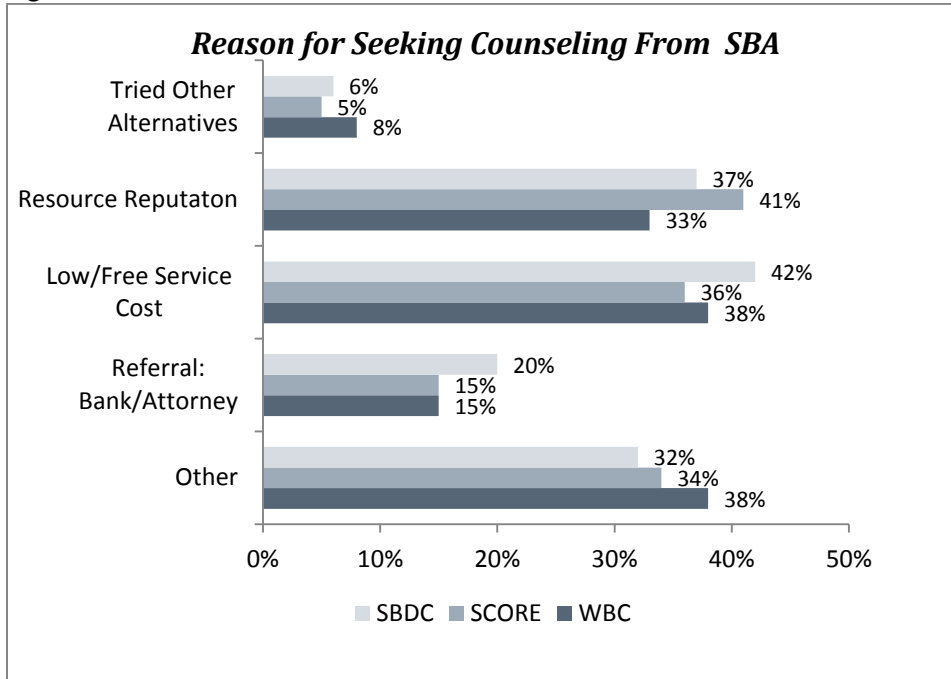
Those clients, who responded that they were In-Business, were asked if they went into business as a result of the counseling they received (Figure 3). Fifteen percent of SBDC clients and 13% of both SCORE and WBC clients responded that their decision to go into business was as a result of counseling. Many clients may have been in business for some time prior to counseling and therefore, the counseling they sought might have been more motivated by improving their businesses, as seen in the previous tables. Additionally, clients were surveyed just a few months after counseling, which may not provide sufficient elapsed time to assess the impact of counseling on the decision to start a business.

Figure 3



Clients reported most often that they sought counseling from SBA because of SBA's reputation and the low/free cost of service¹⁹. (Figure 4)

Figure 4

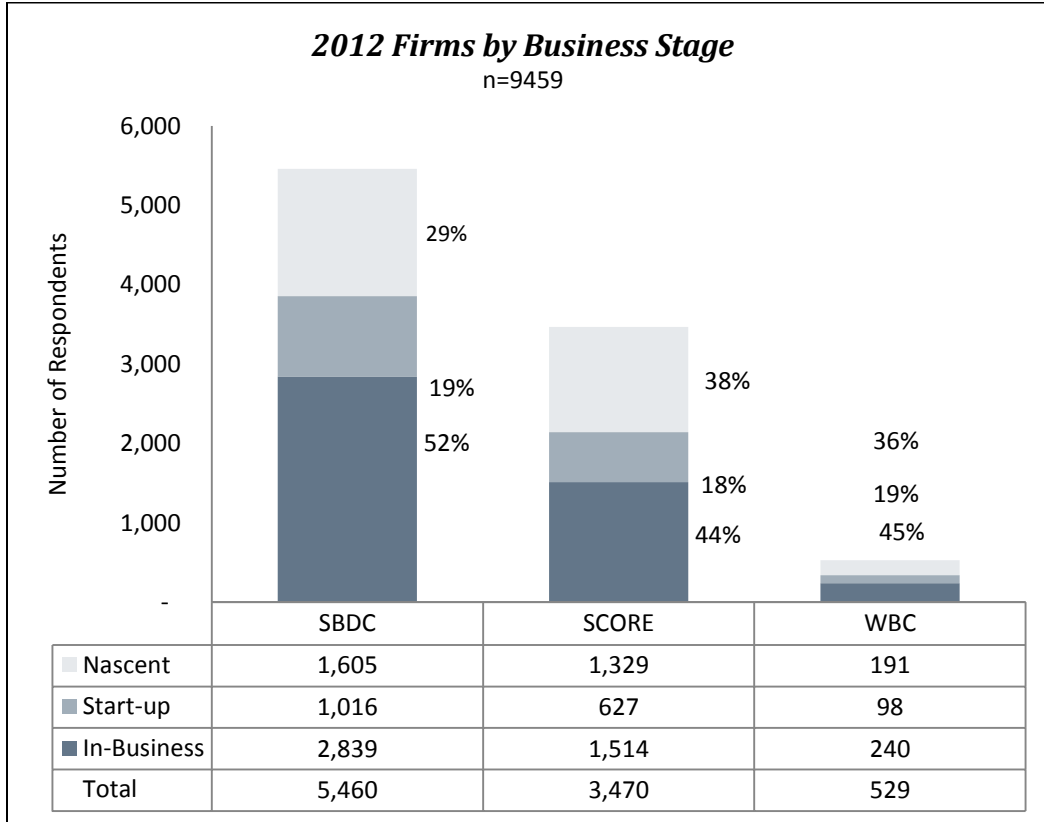


¹⁹ Respondents were able to select "all that applied."

Firm Characteristics

SBA Resource Partners served firms in every business stage (Figure 5).

Figure 5



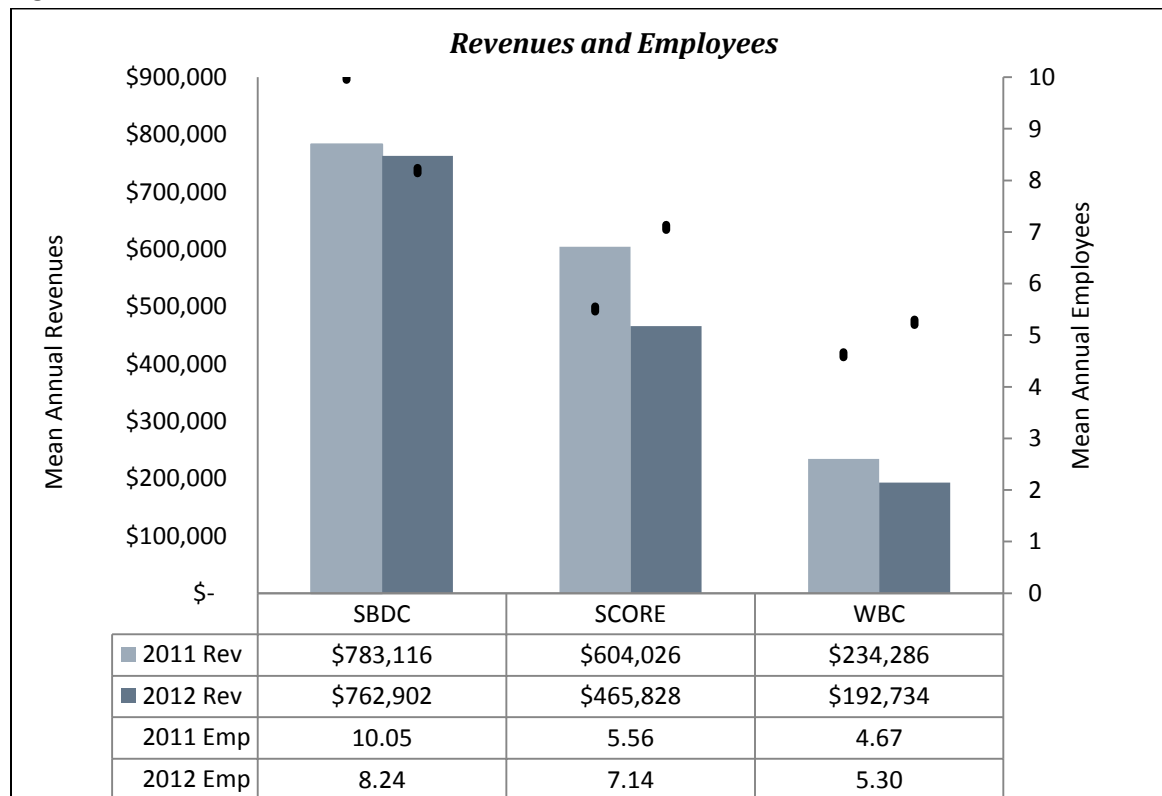
Consistent with previous years the In-Business segment is the largest, followed by the Nascent and Start-up.

Table 10 and Figure 6 below show 2012 firm revenues and employees. Revenues included were greater than zero and up to \$25,000,000. Part-time and full-time employees were added together. These numbers were self-reported by 2012 firms for each year. Since clients were surveyed in March of 2013, little elapsed time between counseling and reporting; therefore 2012 numbers are not necessarily reflective of the impact of counseling. They are however, reflective of difficult economic times in general and for small businesses.

Table 10

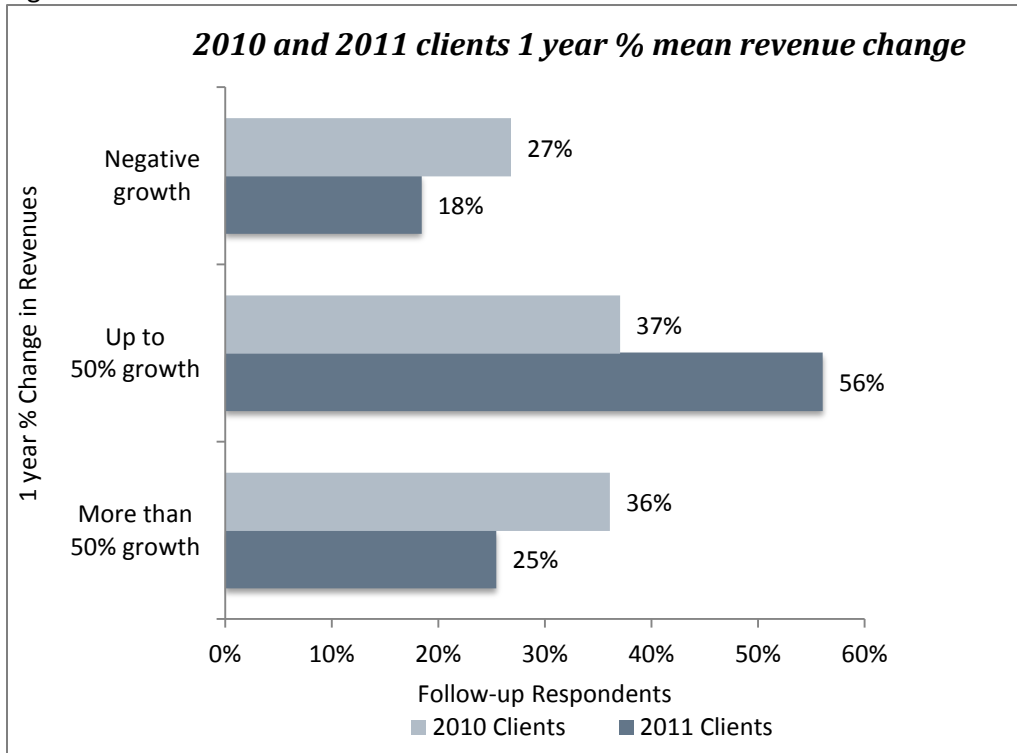
Mean Revenues and Employment 2011 and 2012								
	<u>2011</u>		<u>2012</u>		<u>2011</u>		<u>2012</u>	
	Revenues	N	Revenue	N	Employees	N	Employees	N
SBDC	\$783,116	2,129	\$762,902	2,847	10.05	2,940	8.24	2,223
SCORE	\$604,026	1,029	\$465,828	1,443	5.56	1,608	7.14	1,090
WBC	\$234,286	162	\$192,734	253	4.67	254	5.30	188

Figure 6



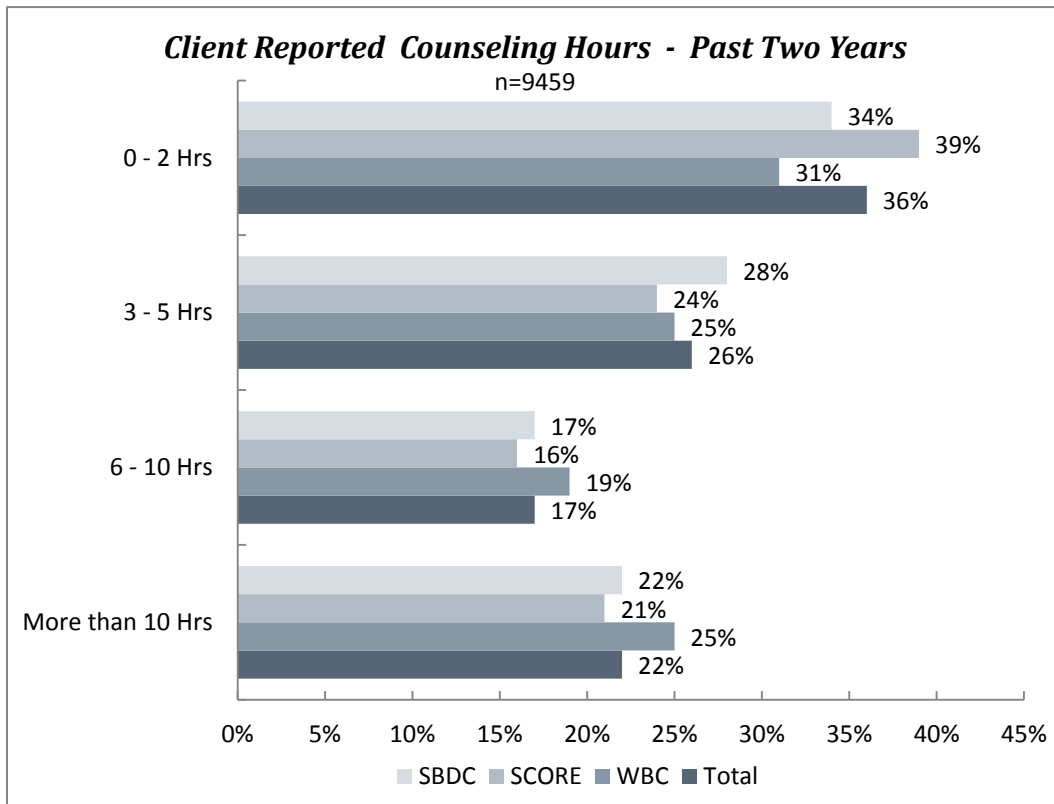
Assessing revenue growth over a longer timeframe (Figure 7) provides a better measure of financial growth of clients who received counseling, as it accounts for the time businesses need to implement and effectuate change. Thirty seven percent of 2010 clients surveyed in 2011 and 56% of 2011 clients surveyed in 2012 achieved up to 50 percent growth after one year. Thirty-six percent of 2010 clients and 25% of 2011 clients grew more than 50%.

Figure 7



This year clients were asked to report their counseling hours during the past two years (Figure 8), as much of the raw data submitted by each Resource Partner indicated that many clients were counseled well over the three or five hour benchmark used in previous analyses. In addition, hours of counseling has emerged as a strong indicator of financial growth for clients.

Figure 8



Other characteristics include firm location (Figure 9) and client level of education (Table 11).

Over 50% of clients have college educations.

Figure 9

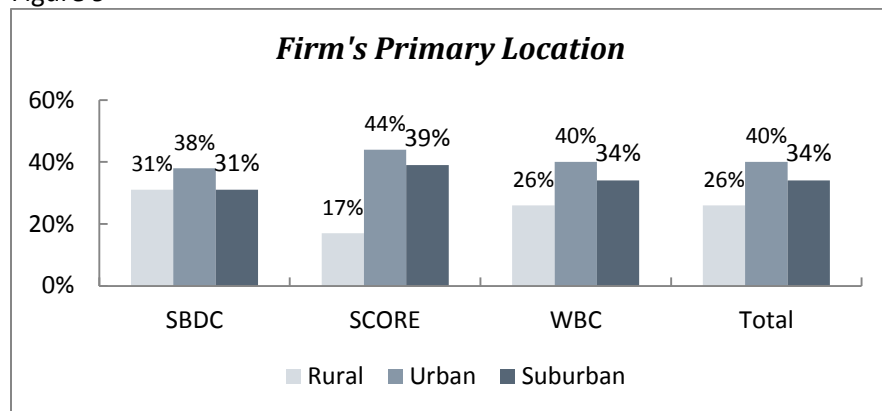


Table 11

	Highest Level of Education of Business Owner (n=9459)			
	SBDC	SCORE	WBC	Total
Some high school	1%	1%	1%	1%
High school diploma/Equivalent	9%	6%	7%	8%
Some college	21%	19%	19%	20%
Associates degree	11%	10%	13%	11%
College degree	32%	36%	34%	34%
Graduate/professional degree	26%	28%	27%	27%

Clients were asked if, in addition to face-to-face counseling, they received additional classroom or online business training (Table 12). Clients who responded that they had received additional training were asked to report the source of that training (Table 13). Clients counseled by SBDC, SCORE, or WBC could have attended classroom training sponsored by any Resource Partner including the one used for face-to-face counseling or by any other training provider (e.g., local chamber of commerce, community college or university). Training was likely, but not necessarily, received prior to counseling, given the short time between receiving counseling and fielding the survey.

Table 12

<i>Additional Online or Classroom Training Attended Focused on Business</i>				
	SBDC	SCORE	WBC	Total
Yes	42%	42%	45%	42%
No	58%	58%	55%	58%

Table 13

<i>Training Provider</i>				
	SBDC	SCORE	WBC	Total
Small Business Development Center	65%	20%	36%	51%
SCORE	21%	37%	24%	35%
Women Business Center	7%	5%	53%	10%
Other	36%	24%	32%	36%

Clients were asked to indicate their primary type of business (Table 14) based on the categories below, which are representative of Census Bureau NAICS codes. Since this question has always elicited a very high percentage of “other” responses, we manually reviewed every response to align business type with the appropriate category according to Census Bureau’s descriptions of the types of businesses included in each category. Examples included in the “Other Services” category include personal services such as pet and personal care, auto repair; and handyman, and religious and funeral services. Landscaping, travel, and janitorial services are considered “Administrative, Support, Waste and Remediation.”

Table 14

	<i>Primary Type of Business</i>				
	SBDC	SCORE	WBC	Total	
Professional, Scientific and Technical Services	15%	18%	13%	16%	} Top Ten
Retail Trade	13%	12%	15%	13%	
Health Care and Social Services	8%	9%	14%	9%	
Manufacturing	10%	8%	4%	9%	
Other Services (personal)	8%	9%	9%	8%	
Arts, Entertainment, and Recreation	7%	8%	9%	8%	
Accommodation and Food Services	8%	6%	9%	8%	
Construction	8%	6%	4%	7%	
Educational Services Construction	4%	6%	6%	5%	
Information	3%	3%	4%	3%	
Agriculture, Forestry, Fishing, and Hunting	3%	2%	1%	3%	
Wholesale Trade	3%	4%	2%	3%	
Real Estate, Rental, and Leasing	2%	3%	2%	2%	
Transportation	2%	2%	2%	2%	
Finance and Insurance	2%	2%	1%	2%	
Administrative, Waste, and Remediation Services	1%	1%	2%	1%	
Management of Companies and Enterprises	1%	2%	1%	1%	
Utilities	1%	1%	<1%	1%	
Mining, Quarrying, Oil, and Gas Extraction	1%	<1%	<1%	<1%	
Public Administration	<1%	<1%	<1%	<1%	
Warehousing	<1%	<1%	<1%	<1%	

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V. Analysis of Impacts: Initial and Follow-up Clients

The following describes key findings based upon extensive regression analyses related to research questions posed for this study and includes data from the Initial Survey of 2012 clients as well as the Follow-Up Survey of 2011 clients. Outputs from the actual regression analyses, including coefficient estimates, fit statistics and other details supporting these findings are provided in Appendices V.A and VI.A (final models) and V.B and VI.B (full models).²⁰ Statistically significant results from the final models are emphasized here.²¹

Research Question 5: What are the effects of SBA OED Resource Partners' face-to-face counseling on financial performance?

A. Initial 2012 Clients - Dependent Variable: Perceived Sales Increases (As a result of the counseling experience I was able to "increase my sales.")

Participants in the Initial Survey of 2012 clients indicated their level of agreement with the statement: as a result of the counseling experience I was able to "*increase my sales*" on a scale ranging from 1 to 5. This was used as a dependent variable in a model in which *perceived sales increases* were regressed on the following independent variables:

- Hours of counseling
- Annual revenues
- Number of employees
- Hours of counseling x revenues²²
- Hours of counseling x number of employees
- Resource Partner
- Business stage
- Type of assistance
- Additional online or classroom business training

²⁰ As previously noted, the full set of independent variables were included in a full model, which was followed by a final, more parsimonious model that includes a reduced set of independent variables.

²¹ Parameter estimates highlighted in this report were statistically significant at the $p < 0.05$ level, which means that the probability that the null hypothesis is actually true is less than 0.05. In practical terms, a statistically-significant predictor variable means that it has a significantly positive or negative effect on the outcome variable, e.g. counseling hours has a significant, positive effect on 2012 revenues.

²² Hours of counseling times revenues and hours of counseling times employees are interaction terms entered to reflect the effects of hours of counseling for firms with high revenues or large numbers of employees.

- Industry
- Geographic location
- Firm age
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Detailed results of these regressions are reported in Appendix V.A (final model) V.B (full model).

Findings suggest that businesses that received more than 3 hours of counseling reported significantly higher *perceived sales increases* than those that received less than 3 hours (Figure 10). It is also the case that the 10 or more hours of counseling has a larger impact on *perceived sales increases* than 6 to 10 hours; and 6 to 10 hours of counseling has a larger impact on *perceived sales increases* than 3 to 5 hours of counseling. Thus, the more counseling hours received, the higher the *perceived sales increases*.

Assistance with business plans, marketing plans, pricing strategy, and general management had significant and positive effects on *perceived sales increases*. Other types of assistance, such as promotion plans, cash flow, loan packages, purchasing strategy had no significant effect on *perceived sales increases*.

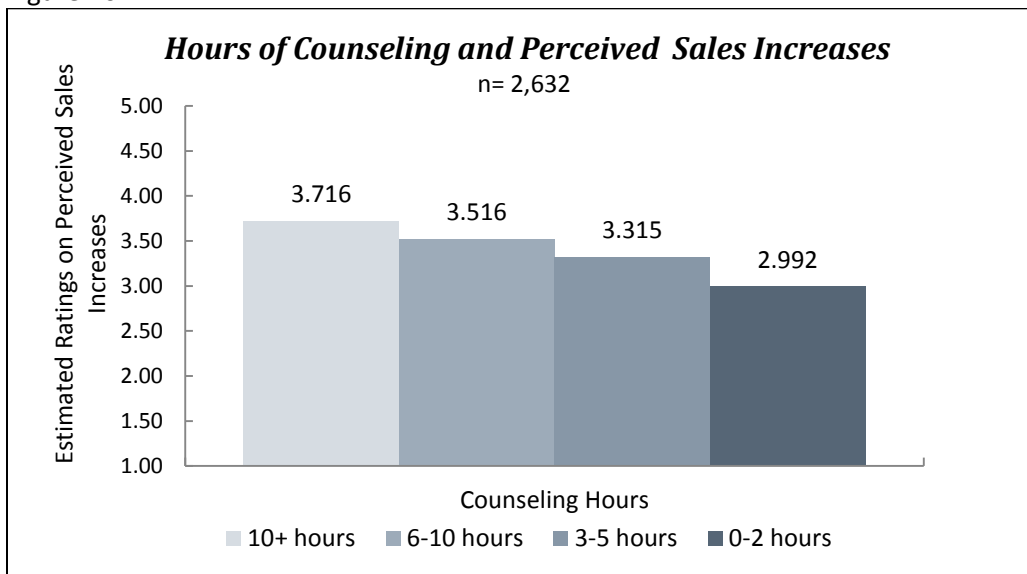
In terms of owner demographics, there was a significant and negative relationship between age and *perceived sales increases*. Thus, older firm owners reported significantly lower *perceived sales increases* than their younger counterparts.

Participants who had received additional online or classroom business training also reported significantly higher *perceived sales increases*.

Otherwise, there were no significant differences in *perceived sales increases* based on Resource, business stage, size of firm in terms of revenues or employment, geographic location, industry, or other owner demographics.

As shown in Figure 10, based on estimates from the regression model described above, businesses that received more hours of counseling reported higher *perceived sales increases*.²³ For example, when asked to indicate their level of agreement on a 5-point scale (strongly disagree to strongly agree) with the statement “As a result of the counseling experience I was able to increase my sales,” respondents who received 10 hours or more of counseling assigned an average of 3.716. By comparison, respondents who received 0 to 2 hours of counseling assigned an average rating of 2.992.

Figure 10



B. Initial Survey of 2012 Clients - Dependent Variable: *Perceived Increases in Profit Margin* (As a result of the counseling experience, I was able to “increase my profit margin.”)

Participants in the initial survey of 2012 clients were asked to indicate their level of agreement with the statement that the counseling experience impacted their ability to “increase my profit margin,” on a scale ranging from 1 to 5 (strongly disagree to strongly agree). This was used as a dependent variable in a model in which perceived increases in profit were regressed on the following independent variables:

²³ Estimates of the dependent variable “perceived sales increases” shown in Figure 10 are based on least squared means (LS Means) from the final regression model reported in Appendix V.A. These estimates represent the dependent variable which is estimated based a linear combination of the values of the independent variables included in the model.

- Hours of counseling
- Annual revenues
- Number of employees
- Hours of counseling x revenues
- Hours of counseling x number of employees
- Resource Partner
- Business stage
- Type of assistance
- Additional online or classroom business training
- Industry
- Geographic location
- Firm age
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Detailed results of these regressions are reported in Appendix V.A (final model) and V.B (full model).

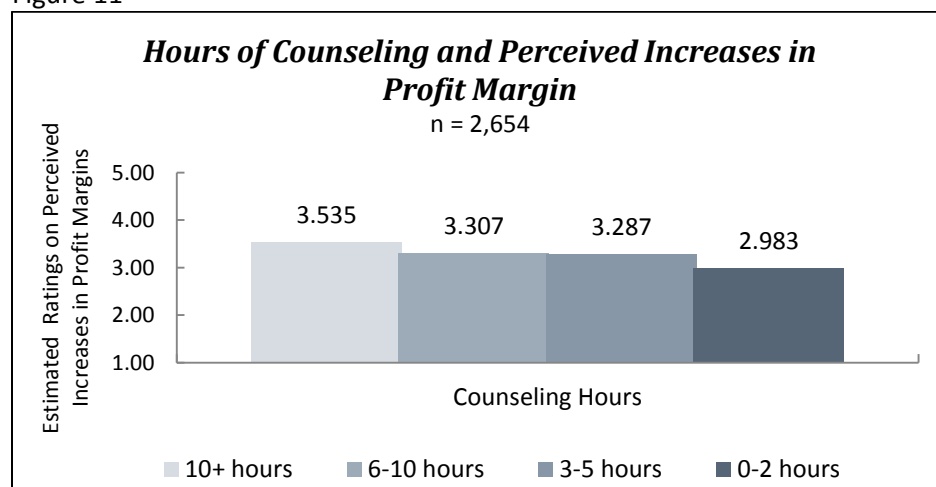
Findings suggest that clients that received 3 or more hours of counseling reported significantly higher *perceived increases in profit margin* than those that received less than 3 hours. It is also the case that the 10 or more hours of counseling had a larger impact on *perceived increases in profit margin* than 6 to 10 hours; and 6 to 10 hours of counseling had a larger impact on *perceived increases in profit margin* than 3 to 5 hours of counseling. Thus, the more hours of counseling received, the higher the *perceived increases in profit margin*.

Assistance with business plans, marketing plans, pricing strategy, general management, cash flow analysis and financial strategy had significant and positive effects on perceived increases in profits; in contrast, other types of assistance, such as promotion plans, loan packages, and purchasing strategy had no significant effects on *perceived increases in profit margin*. Participants who received additional online or classroom business training also reported significantly higher *perceived increases in profit margin*.

Otherwise, there were no significant differences in *perceived increases in profit margin* based on Resource Partner, business stage, firm size, firm age, industry, firm location, owner age, gender or race or ethnicity.

As shown in Figure 11, based on estimates from this regression model, firms that received more hours of counseling reported higher *perceived increases in profit margin*.²⁴ For example, when asked to indicate their level of agreement on a 5-point scale with the statement “As a result of the counseling experience I was able to increase my profit margin,” respondents who received 10 hours or more of counseling assigned an average of 3.535. By comparison, respondents who received 0 to 2 hours of counseling assigned an average rating of 2.983.

Figure 11



C. Follow-up 2011 Clients - Dependent Variable: 2012 Revenues (1-Year Change in Revenues)

In the 2013 follow-up survey, 2011 clients reported 2012 revenues that are used as a dependent variable in a regression model. Because 2011 revenues are held constant, the 2012 *revenues* variable can be interpreted as a change in revenues from the previous year. In this model, 2012 revenues were assessed based on the following independent, explanatory variables:

²⁴ Estimates of the dependent variable “perceived increases in profit margin” shown in Figure 11 are based on least squared means (LS Means) from the final regression model reported in Appendix V.A. These estimates represent the dependent variable which is estimated based a linear combination of the values of the independent variables included in the model.

- 2011 revenues
- 2011 number of employees
- Hours of counseling
- Hours of counseling x 2011 revenues
- Hours of counseling x 2011 number of employees
- Resource Partner
- Business stage
- Type of assistance
- Additional on-line or classroom business training
- Industry
- Geographic location
- Firm age
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Detailed results of these regressions are reported in Appendix VI.A (final model) and Appendix VI.B (full model).

Results of this regression suggest that firms that received 3 or more hours of counseling had significantly higher *2012 revenues* (growth rate) than those firms receiving less than 3 hours of counseling. Thus, there is a relationship between more hours of counseling and revenue growth rate over this one year period.

This beneficial impact of counseling was greatest for those firms with the least 2011 revenue. Conversely in terms of revenue growth rate, this means that the counseling benefit was less important for firms with higher revenue, and more important for smaller firms.

The number of employees in a firm also had a significant relationship with *2012 revenues*; such that the more employees a firm had in 2011, the higher the 2012 revenues.

The type of assistance received from Resource Partners was also found to affect *2012 revenues*. Specifically, clients reporting assistance in development of a loan package or with international trade saw a significant increase in *2012 revenues* relative to 2011 revenues.

However, no other assistance type was found to have a significant impact on *2012 revenues*. The effect of Resource Partner (SBDC, SCORE, or WBC) on *2012 revenues* was also examined, but no significant relationship was found.

Business stage made a difference in *2012 revenues*. Controlling for all other variables, 2011 Start-up firms receiving assistance realized significantly higher increases in *2012 revenues* compared with those firms already In-Business in 2011.

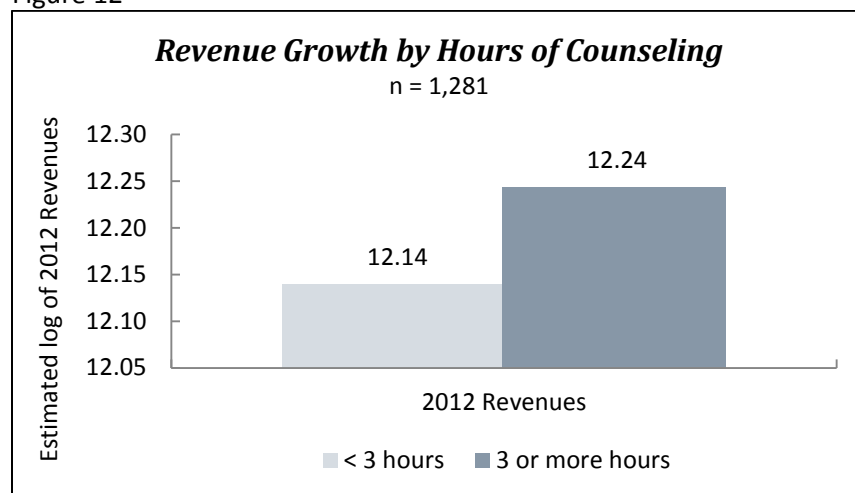
In addition, firms indicating their primary type of business as construction, wholesale, or engineering reported higher *2012 revenues* compared with firms in other types of businesses.

No significant relationship was found between the age of the firm and *2012 revenues*; however, geographic location was a significant explanatory variable of *2012 revenues*. Firms in Urban or Suburban locations had higher *2012 revenues* compared with firms in rural locations. However, no significant difference was found between Urban and Suburban businesses.

When examining client characteristics, the only significant difference that was found was in the category of race. Clients identifying as “White” had significantly higher *2012 revenues* compared with those clients identifying themselves as “Black or African American.” No significant differences were found based on other demographic characteristics.

As shown in Figure 12, based on estimates from the regression models described above, revenue increases from 2011 to 2012 were significantly higher for businesses receiving more than 3 hours of counseling versus those receiving less than 3 hours of counseling.²⁵ For example, the difference between 12.14 and 12.24 in estimated 2012 revenues represented in Figure 12 would translate to an additional \$20,000 in annual revenues for firms with 3 or more counseling hours.²⁶

Figure 12



Research Question 6: What are the effects of SBA OED Resource Partners' face-to-face counseling on job creation?

A. Initial 2012 clients - Dependent variable: *Perceived Hiring Increases* ("Impact of counseling experience - hire new staff.")

Participants in the initial survey of 2012 clients were asked to indicate their level of agreement with the statement that their counseling experience impacted their ability to "hire new staff," on a scale ranging from 1 to 5. This was used as a dependent variable in a model in which *perceived hiring increases* were estimated based on the following set of independent, explanatory variables:

²⁵ Estimates of the dependent variable "2012 revenues" shown in Figure 12 are based on least squared means (LS Means) from the final regression model reported in Appendix VI. These estimates represent the dependent variable which is estimated based a linear combination of the values of the independent variables included in the model.

²⁶ Revenue estimates are expressed in terms of natural logarithms. Thus, EXP (12.14)=\$187,061.

- Hours of counseling
- Annual revenues
- Number of employees
- Hours of counseling x revenues
- Hours of counseling x employees
- Resource Partner
- Business stage
- Type of assistance
- Additional on-line or classroom business training
- Industry
- Geographic location
- Firm age
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Detailed results of these regressions are reported in Appendix V.A and Appendix V.B.

Findings suggest that businesses that received more than 3 hours of counseling reported significantly higher reported *perceived hiring increases* than those that received less than 3 hours.

There also is a significant and positive relationship between firm size and *perceived hiring increases*. Firms with higher revenues and higher numbers of employees reported significantly higher *perceived hiring increases* than their counterparts with lower revenues or fewer employees.

Assistance with business plans and general management had significant and positive effects on *perceived hiring increases*. In the final model, no other types of assistance, such as marketing plans, loan packages, or web strategy had significant effects on *perceived hiring increases*.

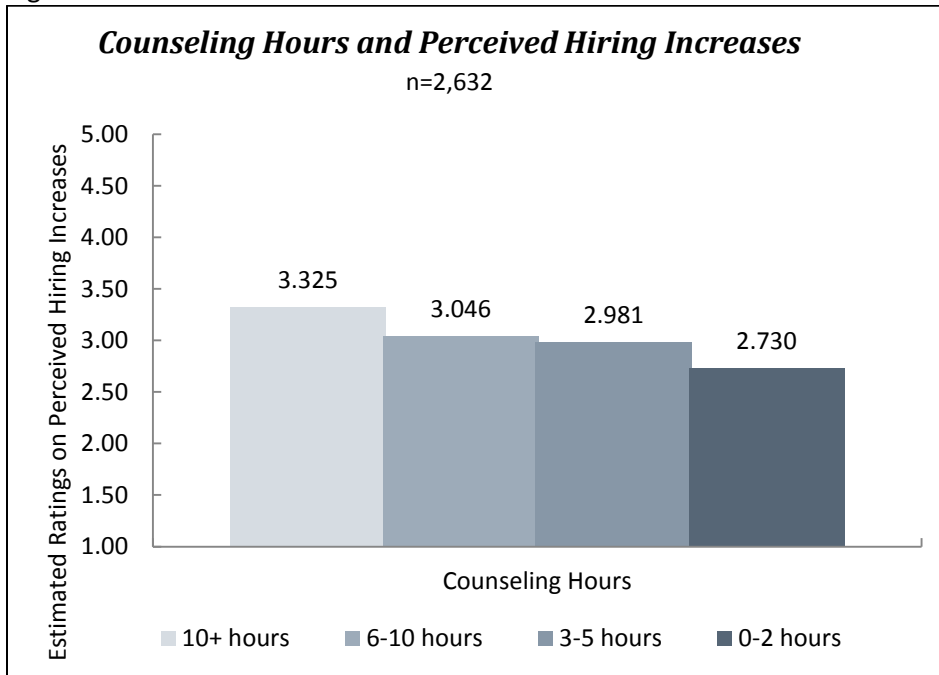
In terms of owner demographics, veterans reported significantly lower increases in profits than their non-veteran counterparts. In addition, older firm owners reported significantly smaller *perceived hiring increases*.

Additional online or classroom business training had no statistically significant effect on *perceived hiring increases*.

There were also no significant differences reported for *perceived hiring increases* based on Resource Partner, business stage, firm age, industry, geographic location, gender or race or ethnicity.

As shown in Figure 13, based on estimates from the regression model described above, businesses that received more hours of counseling reported higher *perceived hiring increases*.²⁷ For example, when asked to indicate their level of agreement on a 5-point scale with the statement “As a result of the counseling experience I was able to hire new staff,” respondents who received 10 hours or more of counseling assigned an average of 3.325. By comparison, respondents who received 0 to 2 hours of counseling assigned an average rating of 2.73.

Figure 13



²⁷ Estimates of the dependent variable “perceived hiring increases” shown in Figure 15 are based on least squared means (LS Means) from the final regression model reported in Appendix V.A. These estimates represent the dependent variable which is estimated based a linear combination of the values of the independent variables included in the model.

B. Follow-up 2011 Clients - Dependent Variable: 2012 Employees (1-Year Change in Employment)²⁸

In the 2013 follow-up survey, OED Resource Partners' 2011 clients reported 2012 number of employees used as a dependent variable in a regression model. Because 2011 employees are held constant, the *2012 employees* variable can be interpreted as a change in employment from the previous year. In this model, *2012 employees* were estimated based on the following independent, explanatory variables:

- 2011 revenues
- 2011 number of employees
- Hours of counseling
- Hours of counseling x 2011 revenues
- Hours of counseling x 2011 employees
- Resource Partner
- Business stage
- Type of assistance
- Additional on-line or classroom business training
- Industry
- Geographic location
- Firm age
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Detailed results of these regressions are reported in Appendix VI.A (final model) and Appendix VI.B (full model).

Results of this regression suggest that the amount of counseling is a significant explanatory variable of *2012 employees*. Controlling for the previous year's number of employees, firms that received 3 or more hours of counseling had significantly higher numbers of *2012 employees* than those firms receiving less than 3 hours of counseling. Thus, there is a positive

²⁸ *2012 employees* are estimated controlling for 2011 employees. Thus, the *2012 employees* outcome variable can be interpreted as a change in employees from the previous year.

relationship between more hours of counseling and employment growth over this one year period.

This additional counseling benefit to *2012 employees* was greater for larger firms, i.e., those firms with higher 2011 employment.

There was also a significant and positive relationship between the current year's number of employees and the prior year's revenues; such that higher 2011 revenues were associated with significantly higher numbers of *2012 employees*.

Controlling for 2011 employment, WBC clients reported significantly higher *2012 employees* relative to SBDC and SCORE. In other words, WBC had higher employment growth than other OED Resource Partners.

There was also a significant effect of business stage on *2012 employees*. Nascent and Start-ups realized more employment growth than In-Business firms. In particular, firms that were In-Business for more than 1 year reported significantly lower growth in numbers of employees than either Nascent or Start-up businesses.

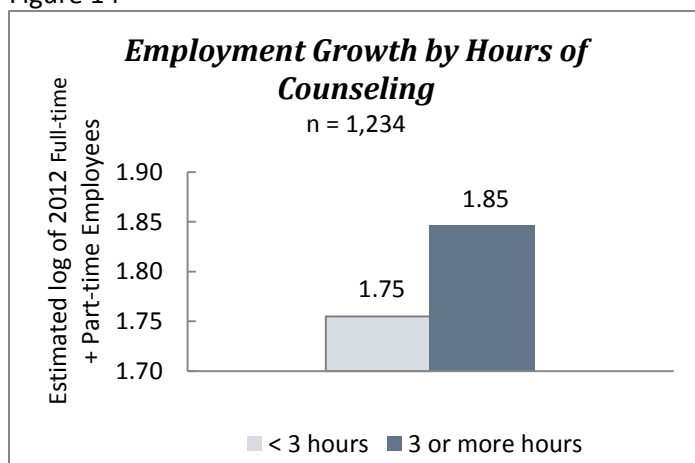
The type of assistance received from OED Resource Partners was also found to be related to *2012 employees*. Specifically, client's reporting that assistance in development of loan packages or distribution plans saw a significant increase in *2012 employees*. On the other hand, assistance with cash flow analysis had a negative impact on *2012 employees*.

Firms indicating their primary type of business as retail or finance/insurance/real estate saw a decline in *2012 employees*, while restaurant businesses had a significant increase in *2012 employees* over this period. There were no significant differences based on other industries. In addition, male-owned businesses had lower *2012 employees* compared to firms owned by both males and females; female-owned firms were similar to firms owned jointly.

Additional differences, based on firm age, or other owner demographic characteristics, were not statistically-significant.

As shown in Figure 14, based on estimates from the regression models described above, employment growth from 2011 to 2012 was significantly higher for businesses receiving more than 3 hours of counseling versus those who received less than 3 hours of counseling²⁹. For example, the difference between 1.75 and 1.85 in estimated 2012 employment represented in Figure 16 would translate to an additional 0.5 employees for firms with 3 or more counseling hours.³⁰

Figure 14



²⁹ Employment estimates are expressed in terms of natural logarithms. Thus, $EXP(1.75) = 5.78$ employees.

³⁰ Estimates of the dependent variable "2012 Employees" shown in Figure 16 are based on least squared means (LS Means) from the final regression model reported in Appendix VI.A. These estimates represent the dependent variable which is estimated based a linear combination of the values of the independent variables included in the model.

Research Question 7: What are the effects of SBA OED Resource Partners' face-to-face counseling on new business startup?

Initial 2012 Clients - Dependent Variable: New Business Startup ("Did you decide to go into business as a result of the assistance you received from your counselor?")

Based on the 2012 Resource Partner Nascent clients that went into business before the March 2013 survey, the probability³¹ of *new business startup* was estimated based on the following set of independent, explanatory variables:

- 2011 revenues
- 2011 number of employees
- Hours of counseling
- Hours of counseling x 2011 revenues
- Hours of counseling x 2011 number of employees
- Resource Partners
- Business stage
- Type of assistance
- Additional on-line or classroom business training
- Industry
- Geographic location
- Firm age
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Detailed results of these logistic regressions are reported in Appendix V.A (final model) and V.B (full model).

These findings provide some evidence of positive effects of counseling hours on *new business startup*. While there is no significant difference between 3 to 5 hours of counseling or 0 to 2 hours, 6 hours or more hours of counseling had a significant and positive effect on the probability of *new business startup*.

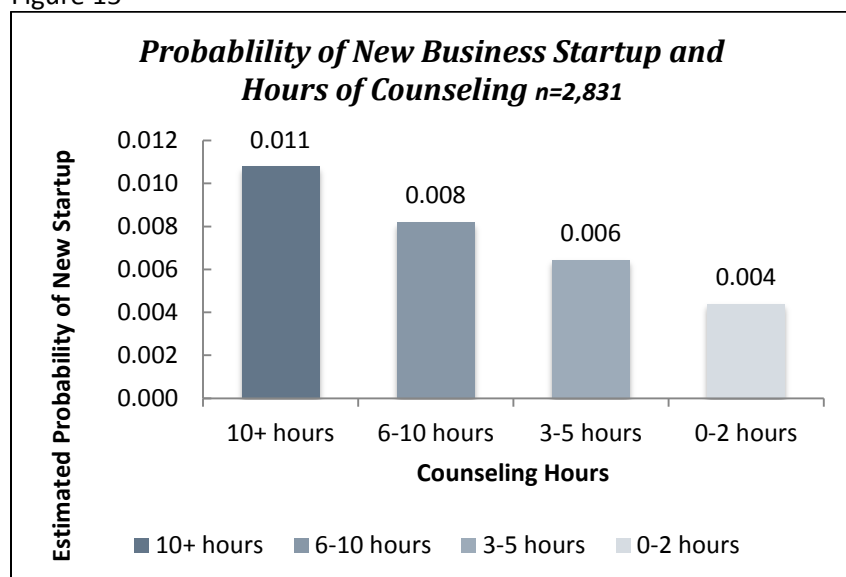
³¹ Because the dependent variable was dichotomous, i.e. yes or no response, logistic regression was used to model the probability of an event or occurrence.

In terms of types of assistance, business plans, marketing plans, pricing strategies and general management had significant and positive effects on the probability of *new business startup*. Other types of assistance, such as cash flow analysis, loan packages, etc., were not significant. There were no significant effects of firm size, Resource Partner, industry, geographic location, or additional training on the probability of *new business startup*.

The only significant demographic variable in this model was Hispanic/Latino ethnicity. Firms owned by Hispanic/Latinos had a significantly higher probability of *new business startup* than businesses owned by White participants. There were no other significant differences based on races/ethnicity.

As shown in Figure 15, based on estimates from the logistic regression model described above, the probability of *new business startup* was significantly higher for businesses receiving more hours of counseling versus those who received less hours of counseling. For example, for clients receiving 10 or more hours of counseling, the probability of starting a new business was 0.011, compared to 0.004 for clients with 2 or less hours of counseling.³²

Figure 15



³² Estimates of the dependent variable “New business startup” shown in Figure 15 are based on least squared means (LS Means) from the final logistic regression model reported in Appendix V.A. These estimates represent the dependent variable which is estimated based a linear combination of the values of the independent variables included in the model.

Research Question 8: What are the effects of SBA OED Resource Partners' face-to-face Counseling assistance on survival?

Follow-up - Dependent Variable: Survival ("Did you Close or Sell Your Business?")³³

The probability of *1-year survival* from the initial survey of 2011 clients to the follow-up survey was modeled using a survival analysis.³⁴ Because there were only 36 participants from the initial 2011 survey who reported having sold or closed their business by the time of the follow-up survey, there were an insufficient number of cases with complete data to be able to run a regression based on a full set of explanatory variables. Thus, the probability of *1-year survival* was estimated based on the following set of independent, explanatory variables:

- 2011 revenues
- Hours of counseling
- Resource Partner
- Business stage
- Owner demographics (e.g. veteran status, level of education, race/ethnicity, age, gender)

Details on the survival analysis sample are shown in Appendix VI.A. Findings from the survival analysis estimation are reported in Appendix VI.B.

Findings from this survival analysis suggests that firms with higher revenues in 2011 had a significantly higher probability of *1-year survival* than firms with lower 2011 revenues. This suggests that larger firms were more likely to survive from 2011 to 2012. This is not at all surprising, but is included in the model to control for firm size differences that might affect survival.

However, there was no significant relationship between hours of counseling and *1-year survival*. This may be due to the short time span between the administration of the initial and

³³ The dependent variable in this model was actually the probability of closing or selling the business during the year between the initial and follow-up surveys, which is the alternative to 1-year survival. However, these findings are presented in terms of survival for simplicity.

³⁴ Because the dependent variable was dichotomous, i.e. yes or no response, survival analysis was used to model the probability of an event or occurrence. Survival analysis, used here, refers to the clog-log transformation recommended for predicting the probability of an event that occurs only once over a span of time. Details are discussed in the Follow-Up Analysis section.

the follow-up survey. That is, a single year may be insufficient to observe significant effects of counseling on the probability of *1-year survival*.

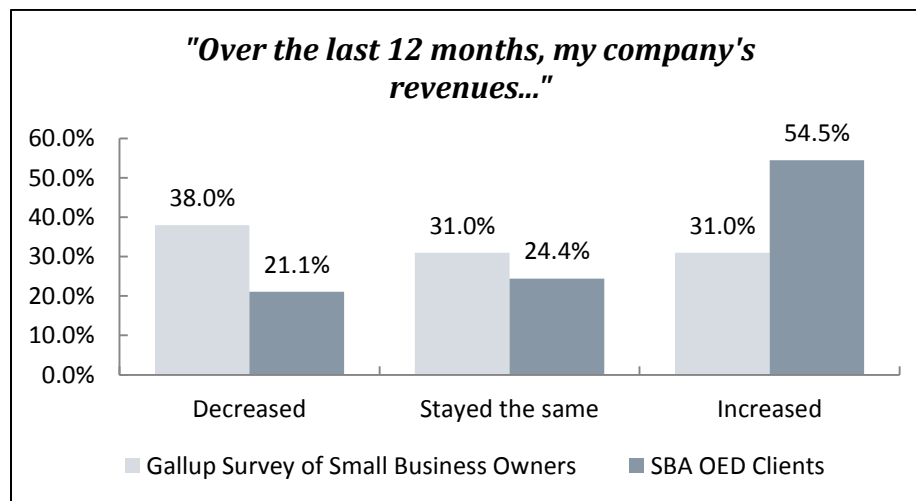
No other explanatory variables, including Resource Partner, business stage, or owner demographic characteristics had a significant effect on the probability of *1-year survival*.

Research Question 9: How does financial performance of SBA OED Resource Partners' clients compare to that of other small businesses and the macro economy overall?

Initial 2012 Clients - How does revenue growth of SBA OED Resource Partners' clients compare to that of other small businesses? "Over the last 12 months my company's revenues: increased /stayed the same/decreased."

OED Resource Partner 2012 clients were more likely to report that their revenues increased over the past year than participants in a nationally-representative random sample of small businesses. As shown in Figure 16, the OED Resource Partner clients sampled were more likely to report revenue increases over the past 12 months than small business owners surveyed by the Wells Fargo Gallup Small Business Index.³⁵ In other words, firms who received counseling from SBA OED Resource Partner clients were more likely to report revenue increases compared to randomly sampled U.S. small businesses.³⁶

Figure 16



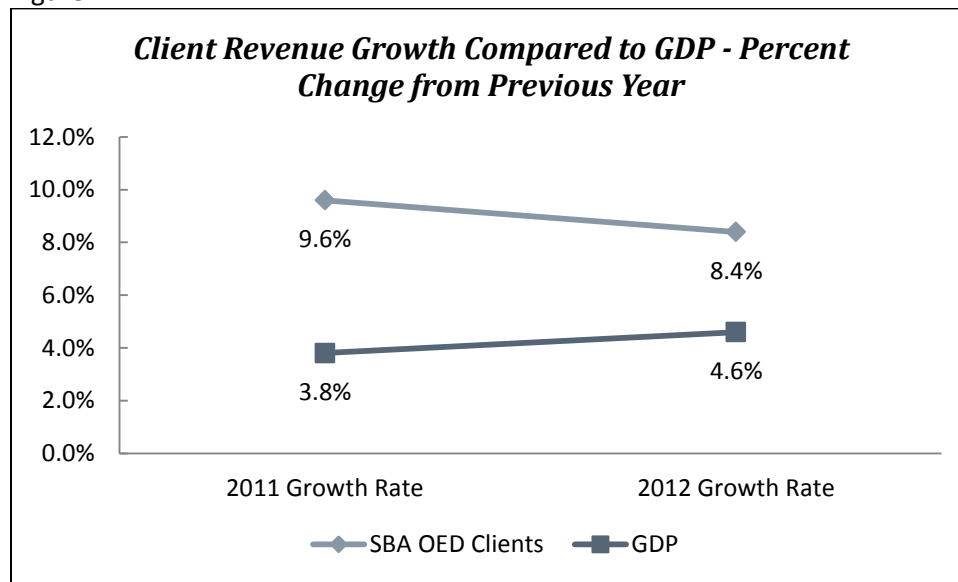
³⁵ Source: Wells Fargo/Gallup Survey of Business Owners. The Wells Fargo/Gallup Small Business Index surveyed small-business owners on current and future perceptions of their business financial situations. These results are based on telephone interviews with a random sample of 603 small business owners, with \$20 million or less of sales or revenues, conducted July 9-13, 2012. The data are weighted to be nationally representative. Available at: <http://www.gallup.com/poll/156458/small-business-owners-optimism-declines-july.aspx#2>.

³⁶ SBA OED Resource Partners' client survey included five response categories for this question: Over the last 12 months my company's revenues: increased a lot/increased a little/stayed the same/decreased a little/decreased a lot. The categories representing increases and decreases were combined to be consistent with the survey and reporting methodology used in the Wells Fargo/Gallup survey.

Follow-up 2011 Clients -How does revenue growth of SBA OED Resource Partners' clients compare to the macro economy overall? (GDP)

The Resource Partner client sample outpaced the economy overall. Figure 17 compares growth of OED Resource Partner³⁷ clients to Gross Domestic Product³⁸ (GDP). The overall economy has experienced growth over this time period, as have OED Resource Partner clients. A comparison of these growth rates show that OED Resource Partner clients are growing faster than GDP, although the growth rate is slightly lower than it was over the previous period.

Figure 17



³⁷ SBA OED Partners' client figures are based on Start-up or In-Business firms' mean revenues from 2010 and 2011 clients compared with their matched follow-up surveys. Clients with revenue less than \$1000 or greater than \$25 million in either survey were excluded.

³⁸ Source: Bureau of Economic Analysis, GDP Percent Change from Preceding Period, 7/31/13, <http://www.bea.gov/national/>

VI. Appendices

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Appendix I – Initial Impact Survey

U.S. Small Business Administration
Office of Entrepreneurial Development
Initial Economic Impact Survey

OMB Number 3245-0351
Expiration
03/31/2013

Dear Small Business Client:

Thank you for your recent visit to [the Small Business Development Center (SBDC)/ SCORE/ the Women's Business Center (WBC)], one of SBA's Office of Entrepreneurial Development (OED) Resource Partners. We hope you found the business assistance you sought. The SBA is always striving to improve its programs and deliver meaningful assistance. We want to know if our programs and services are helping the economy by providing useful information on starting and managing businesses and eventually helping your business create jobs, and increasing your revenues and, in general, fueling the entrepreneurial spirit in America.

We would appreciate your taking a few minutes to answer some brief questions that will help us determine the quality and impact of the programs. All responses to these questions are voluntary and will be held in confidence. The data will not be released to any other government agency or private firm. Please answer the following questions based on your visit to [the Small Business Development Center (SBDC)/ SCORE/ the Women's Business Center (WBC)].

1. Are you currently in business? Yes No
1a. If YES when was the business started? __/____
mm/yyyy

If Yes to Question 1, skip to Question 2. If No, continue to 1b

- 1b. **If NO (to Question 1), when do you plan on starting a business?**
Within 30 days 31-90 days
91-120 days No idea at this time

If you are not currently in business, skip to Question 10.

2. Did you decide to go into business as a result of the assistance you received from your counselor?
Yes No
3. As a result of the assistance you received, have you changed any of your current management practices/strategies? Yes No

4. As a result of the assistance I received from the **[SBDC/ SCORE/ WBC]** Counselor, were you able to develop one or more of the following (i.e., Business Plan) in order to better manage my business? **[Check all that apply]**

- | | | | | | |
|--------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|
| Business Plan | <input type="checkbox"/> | Loan Package | <input type="checkbox"/> | Purchasing Strategy | <input type="checkbox"/> |
| Marketing Plan | <input type="checkbox"/> | Hiring Plan | <input type="checkbox"/> | Feasibility Plan | <input type="checkbox"/> |
| Promotional Plan | <input type="checkbox"/> | Production Plan | <input type="checkbox"/> | Staff Training Plan | <input type="checkbox"/> |
| Pricing Strategy | <input type="checkbox"/> | Financial Strategy | <input type="checkbox"/> | Distribution Plan | <input type="checkbox"/> |
| Cash Flow Analysis | <input type="checkbox"/> | Web Based Strategy | <input type="checkbox"/> | International Trade | <input type="checkbox"/> |
| General Management | <input type="checkbox"/> | Close/Sell Business | <input type="checkbox"/> | | |
| Other _____ | | | | | |

5. Please indicate the impact your counseling experience had on your firm:
[Strongly Agree=SA, Agree=A, No Opinion=NO, Disagree=D, Strongly Disagree=SD]

	SA	A	NO	D	SD
I was able to:					
1. Increase my sales	5	4	3	2	1
2. Improve my cash flow	5	4	3	2	1
3. Acquire a bank loan	5	4	3	2	1
4. Expand my products/services	5	4	3	2	1
5. Hire new staff	5	4	3	2	1
6. Revise my marketing strategy	5	4	3	2	1
7. Increase my profit margin	5	4	3	2	1
8. Retain current staff	5	4	3	2	1
9. Acquire a SBA guarantee loan	5	4	3	2	1
10. Acquire a government contract	5	4	3	2	1
11. Acquire a SBA Disaster loan	5	4	3	2	1
12. Other (specify _____)	5	4	3	2	1

6. At the time you were assisted by [the Small Business Development Center (SBDC)/ SCORE/ the Women’s Business Center (WBC)], what was the approximate annual gross revenue for each of the calendar years below:

[All data will be held in strict confidence and reported only in the aggregate without identifying any individual small business] **Enter whole dollars only. Enter 0 or revenues from 1,000 to 25,000,000**

2011: \$ _____,_____,_____.00

2012: \$ _____,_____,_____.00

6a. Over the last 12 months my company’s revenues (**Check one**)

Increased a lot	Increased a little	Stayed the same	Decreased a little	Decreased a lot
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. *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 employ at the end of the following years you were in business?

2011 _____ Number of Full-time employees (**35 hours or more per week**)

2012 _____ Number of Full-time employees (**less than 35 hours per week**)

2011 _____ Number of Part-time employees (**35 hours or more per week**)

2012 _____ Number of Part-time employees (**less than 35 hours per week**)

8. What is your firm’s primary type of business? [**Please choose only one**]

- | | | | |
|--|--------------------------|---|--------------------------|
| Accommodation and Food Services | <input type="checkbox"/> | Manufacturing | <input type="checkbox"/> |
| Administrative, Waste and Remediation Services | <input type="checkbox"/> | Mining, Quarrying, Oil and Gas Extraction | <input type="checkbox"/> |
| Agriculture, Forestry, Fishing and Hunting | <input type="checkbox"/> | Professional, Scientific & Technical Services | <input type="checkbox"/> |
| Arts, Entertainment, and Recreation | <input type="checkbox"/> | Public Administration | <input type="checkbox"/> |
| Construction | <input type="checkbox"/> | Real Estate, Rental, Leasing | <input type="checkbox"/> |
| Educational Services | <input type="checkbox"/> | Retail Trade | <input type="checkbox"/> |
| Finance and Insurance | <input type="checkbox"/> | Transportation | <input type="checkbox"/> |
| Health Care and Social Assistance | <input type="checkbox"/> | Wholesale Trade | <input type="checkbox"/> |
| Information | <input type="checkbox"/> | Warehousing | <input type="checkbox"/> |
| Management of Companies and Enterprises | <input type="checkbox"/> | Utilities | <input type="checkbox"/> |
| Other Services | <input type="checkbox"/> | | |

9. What is the geographic location of your primary business?
Rural Urban Suburban

10. What led to your decision to seek business counseling from [SBDC/ SCORE/ WBC]?
[Check all that apply]

Tried other alternatives and was dissatisfied
Reputation of [SBDC/ SCORE/ WBC]
Low/free cost of service
Referred by Accountant/Banker/Attorney
Other _____
(Fill in the blank)

11. Please indicate how useful the services were that you received from the counselor who assisted you with your business needs. (Check one)

Very Useful	Useful	No Opinion	Somewhat Useful	Not Useful
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. During the past two years, how many hours of counseling did you receive?

0 – 2 hours 3 – 5 hours 6 – 10 hours
more than 10 hours

13. I would refer the counseling services I received to other small businesses.
Strongly Agree Agree No Opinion Disagree Strongly Disagree

14. Gender: Male owned(s) Female owned(s)
Both male and female owned

15. Veterans status:
Veteran Service Disabled Veteran
Reservist National Guard member Non-Veteran

16. Age: 18-24 25-34 35-44 45-54 55-64
65-74 75+

17. Are you: Hispanic or Latino Not of Hispanic or Latino Origin

If Hispanic or Latino skip to Question 19

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Contract SBAHQ09C004B

18. Are you: **[Please choose one or more]**
- American Indian or Alaskan Native Asian
Black or African American Native Hawaiian/ Pacific Islander
White
19. What is the highest level of education you have completed? **(Check one)**
- Some high school Associates degree
High school diploma/Equivalent College degree
Some college Graduate/professional degree
20. In addition to counseling, have you received any online or classroom training focusing on business?
- Yes No
- 20a. **If YES, select those you used [Check all that apply]**
- Small Business Development Center SCORE
Women Business Center Other _____

PLEASE NOTE: The estimated burden for completing this form is 12 minutes per response. You are not required to respond to any collection of information unless it displays a currently valid OMB approval number. Comments on the burden should be sent to U.S. Small Business Administration, Chief, AIB, 409 3rd St., S.W., Washington, D.C. 20416 and Desk Officer for the Small Business Administration, Office of Management and Budget, New Executive Building, Room 10202, Washington, D.C. 20503. OMB Approval (3245-0351). PLEASE DO NOT SEND FORMS TO OMB.

SBA Form 2214

THANK YOU

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Appendix II – Initial Impact Survey Questions and Response

Distribution

Survey Question (Initial Impact)	Response Distribution
Q1. Are you currently in business?	n=5459
<input type="checkbox"/> Yes	6380 /67.4%
<input type="checkbox"/> No	3079/32.6%
Q1a. If yes, when was the business started?	n=5459
MM (valid date range)	01-12
YYYY (valid date range)	1866-2013
Q1b. If you are not currently in business, when do you plan on starting a business?	n=3079
<input type="checkbox"/> Within 30 days	181/6%
<input type="checkbox"/> 31 – 90 days	468/15%
<input type="checkbox"/> 91- 120 days	644/21%
<input type="checkbox"/> No idea at this time	1786/58%
Q2. Did you decide to go into business as a result of the assistance you received from you counselor?	n=6380
<input type="checkbox"/> Yes	904/14%
<input type="checkbox"/> No	5476/86%
Q3. As a result of the assistance you received, have you changed any of your current management practices/strategies?	n=6380
<input type="checkbox"/> Yes	4012/63%
<input type="checkbox"/> No	2368/37%
Q4. As a result of the assistance I received, I was able to develop [Check all that apply]	n=n/a
<input type="checkbox"/> Business Plan	3450/54%
<input type="checkbox"/> Marketing Plan	2844/45%
<input type="checkbox"/> Promotional Plan	1517/24%
<input type="checkbox"/> Pricing Strategy	1613/25%
<input type="checkbox"/> Cash Flow Analysis	1879/29%
<input type="checkbox"/> General Management	2230/35%
<input type="checkbox"/> Loan Package	941/15%
<input type="checkbox"/> Hiring Plan	648/10%
<input type="checkbox"/> Production Plan	643/10%

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Contract SBAHQ09C004B*

Survey Question (Initial Impact)	Response Distribution					
<input type="checkbox"/> Financial Strategy	1833/29%					
<input type="checkbox"/> Web Based Strategy	1255/20%					
<input type="checkbox"/> Purchasing Strategy	618/10%					
<input type="checkbox"/> Feasibility Plan	1040/16%					
<input type="checkbox"/> Staff Training Plan	436/7%					
<input type="checkbox"/> Distribution Plan	462/7%					
<input type="checkbox"/> International Trade	245/4%					
<input type="checkbox"/> Close Sell a Business	324/5%					
<input type="checkbox"/> Other	1165/18%					
Q5. Please indicate the impact your counseling experience had on your firm:[Strongly Agree=SA, Agree=A, No Opinion=NO, Disagree=D, Strongly Disagree=SD]						
	SA	A	NO	D	SD	n=
<input type="checkbox"/> Increase my sales	872	1729	2114	881	418	6014
<input type="checkbox"/> Improve my cash flow	806	1845	2060	861	407	5979
<input type="checkbox"/> Acquire a bank loan	524	537	2969	1272	536	5838
<input type="checkbox"/> Expand my products/services	774	1732	2036	1009	402	5953
<input type="checkbox"/> Hire new staff	389	809	2933	1267	433	5831
<input type="checkbox"/> Revise my marketing strategy	1248	2413	1340	727	356	6084
<input type="checkbox"/> Increase my profit margin	691	1652	2213	954	399	5909
<input type="checkbox"/> Retain current staff	412	1092	3036	866	384	5790
<input type="checkbox"/> Acquire an SBA guarantee loan	327	311	3237	1324	586	5785
<input type="checkbox"/> Acquire a government contract	149	279	3371	1399	551	5749
<input type="checkbox"/> Acquire an SBA Disaster loan	48	72	3602	1444	548	5714
Q6. At the time you were assisted by [SBDC/ SCORE/WBC], what was the approximate annual gross revenue for each of the calendar years below: [Enter whole dollars only. Enter 0 or revenues from 1,000 to 25,000,000]	n=6380					
2011	Mean Income= \$364,695					
2012	Mean Income= \$453,438					
Q6a. Over the last 12 months my company's revenues (Check one)	n=6380					
<input type="checkbox"/> Increased a lot	1612/25%					
<input type="checkbox"/> Increased a little	2251/35%					
<input type="checkbox"/> Stayed the same	1696/27%					

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Survey Question (Initial Impact)	Response Distribution
<input type="checkbox"/> Decreased a little	443/7%
<input type="checkbox"/> Decreased a lot	378/6%
Q7. 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 employ at the end of the following years you were in business?	n=6380
2011 Full-time employees	Mean Number of Employees = 2.68
2012 Full-time employees	Mean Number of Employees = 1.73
2011 Part-time	Mean Number of Employees = 3.58
2012 Part-time	Mean Number of Employees = 2.52
Q8. What is your firm's primary type of business?	n=6380
<input type="checkbox"/> Accommodation and Food Services	493/8%
<input type="checkbox"/> Administrative, Business, Waste and Remediation Services	73/1%
<input type="checkbox"/> Agriculture, Forestry, Fishing and Hunting	163/3%
<input type="checkbox"/> Arts, Entertainment, and Recreation	479/8%
<input type="checkbox"/> Construction	434/7%
<input type="checkbox"/> Educational Services	293/5%
<input type="checkbox"/> Finance and Insurance	119/2%
<input type="checkbox"/> Health Care and Social Assistance	545/9%
<input type="checkbox"/> Information	170/3%
<input type="checkbox"/> Management of Companies and Enterprises	80/1%
<input type="checkbox"/> Manufacturing	564/9%
<input type="checkbox"/> Mining, Quarrying, Oil and Gas Extraction	27/<1%
<input type="checkbox"/> Professional, Scientific & Technical Services	1012/16%
<input type="checkbox"/> Public Administration	13/<1%
<input type="checkbox"/> Real Estate, Rental, Leasing	141/2%
<input type="checkbox"/> Retail Trade	836/13%
<input type="checkbox"/> Transportation	134/2%
<input type="checkbox"/> Utilities	35/1%
<input type="checkbox"/> Warehousing	13/<1%
<input type="checkbox"/> Wholesale Trade	222/3%
<input type="checkbox"/> Other (personal) Services	504/8%
Q9. What is the geographic location of your primary business?	n=6380
<input type="checkbox"/> Rural	1646/26%
<input type="checkbox"/> Urban	2582/40%

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Contract SBAHQ09C004B*

Survey Question (Initial Impact)	Response Distribution
<input type="checkbox"/> Suburban	2152/34%
Q10. What led to your decision to seek business counseling from [SBDC/ SCORE/ WBC]? [Check all that apply]	n=n/a
<input type="checkbox"/> Tried other alternatives and was dissatisfied	533/6%
<input type="checkbox"/> Reputation of [SBDC/ SCORE/ WBC]	3637/38%
<input type="checkbox"/> Low/free cost of service	3727/39%
<input type="checkbox"/> Referred by Accountant/Banker/Attorney	1682/18%
<input type="checkbox"/> Other	3177/33%
Q11. Please indicate how useful the services were that you received from the counselor who assisted you with your business needs. (Check one)	n=9459
<input type="checkbox"/> Very Useful	5573/59%
<input type="checkbox"/> Useful	2008/21%
<input type="checkbox"/> No Opinion	182/2%
<input type="checkbox"/> Somewhat Useful	1010/11%
<input type="checkbox"/> Not useful	686/7%
Q12. During the past two years, how many hours of counseling did you receive?	n=9459
<input type="checkbox"/> 0-2 hours	3365/36%
<input type="checkbox"/> 3-5 hour s	2475/26%
<input type="checkbox"/> 6-10 hours	1583/17%
<input type="checkbox"/> more than 10 hours	2036/22%
Q13. I would refer the counseling services I received to other small businesses.	n=9459
<input type="checkbox"/> Strongly Agree	5927/63%
<input type="checkbox"/> Agree	2514/27%
<input type="checkbox"/> No Opinion	391/4%
<input type="checkbox"/> Disagree	291/3%
<input type="checkbox"/> Strongly Disagree	336/3%
Q14. What is your Gender?	n=9459
<input type="checkbox"/> Male	4808/51%
<input type="checkbox"/> Female	4651/49%
Q15. What is your Veteran status?	n=9459
<input type="checkbox"/> Veteran	912/10%

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Contract SBAHQ09C004B*

Survey Question (Initial Impact)	Response Distribution
<input type="checkbox"/> Service Disabled Veteran	239/3%
<input type="checkbox"/> Reservist	39/<1%
<input type="checkbox"/> National Guard Member	39/<1%
<input type="checkbox"/> Non-Veteran	8230/87%
Q16. What is your Age?	n=9459
<input type="checkbox"/> 18-24	255/3%
<input type="checkbox"/> 25-34	1790/19%
<input type="checkbox"/> 35-44	2263/24%
<input type="checkbox"/> 45-54	2582/27%
<input type="checkbox"/> 55-64	1936/20%
<input type="checkbox"/> 65-74	552/6%
<input type="checkbox"/> 75+	81/1%
Q17. Are you:	n=9459
<input type="checkbox"/> Hispanic or Latino	816/9%
<input type="checkbox"/> Not of Hispanic or Latino Origin	8643/91%
Q18. Are you	n=8787
<input type="checkbox"/> American Indian or Alaskan Native	190/2%
<input type="checkbox"/> Black or African American	1338/14%
<input type="checkbox"/> White	6812/72%
<input type="checkbox"/> Asian	370/4%
<input type="checkbox"/> Native Hawaiian or Pacific Islander	77/1%
Q19. What is the highest level of education you have completed?	n=9459
<input type="checkbox"/> Some High School	77/1%
<input type="checkbox"/> High School diploma/Equivalent	738/8%
<input type="checkbox"/> Some College	1919/20%
<input type="checkbox"/> Associates degree	1000/11%
<input type="checkbox"/> College degree	3179/34%
<input type="checkbox"/> Graduate/professional degree	2546/27%
Q20. In addition to counseling, have you received any online or classroom training focusing on business?	n=9459
<input type="checkbox"/> Yes	3949/42%
<input type="checkbox"/> No	5510/58%

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Contract SBAHQ09C004B*

<i>Survey Question (Initial Impact)</i>	<i>Response Distribution</i>
Q20a. If yes, select those you used [Check all that apply].	n=N/A
<input type="checkbox"/> Small Business Development Center	2010/51%
<input type="checkbox"/> Women Business Center	401/10%
<input type="checkbox"/> SCORE	1368/35%
<input type="checkbox"/> Other	1441/36%

Appendix III – Follow-up Impact Survey

U.S. Small Business Administration
Office of Entrepreneurial Development
Follow-up Economic Impact Survey

OMB Number 3245-0351
Expiration
03/31/2013

Dear Small Business Client:

Within the last twelve months you were kind enough to respond to our request for some initial data regarding your visit(s) to SBA's Office of Entrepreneurial Development Resource Partner [the **Small Business Development Center (SBDC)**, the **Women's Business Center (WBC)**, **SCORE**]. To continually understand the impact our programs and services are having on the economy it would be helpful to know if our assistance to you regarding starting and managing a business resulted in job creation, increases in your business' revenues or other results.

We understand that you responded to a thorough survey not so long ago, but we ask that you help us in answering a few questions for this follow-up survey which will take less than 5 minutes. All responses to these questions are voluntary and will be held in confidence. The data will not be released to any other government agency or private firm. Based on your visit to [SBDC, WBC, SCORE], please use that experience as a benchmark to answer the following:

1. Are you currently in business? Yes No

1a. If **YES**, when was the business started? __/____
Mm/yyyy
(Month 01-12, Year 1800 – 2013)

2. If you were not in business at the time you were assisted by the counselor, did you decide to go into business as a result of that assistance?
Yes No

If you are currently in business, skip to Question 5.

3. **If you are not currently in business**, when do you plan on starting a business?
Within 30 days 31-90 days
91-120 days No idea at this time

4. **If you are not currently in business**, have you ever been in business?

Yes No

If YES, when was the business started? / ____

Mm/ yyyy

(Month 01-12, Year 1800 – 2013)

If you have never been in business, skip to the end (Thank You).

5. Did you sell your business? **OR**

Did you close your business?

5a. When did you sell or close your business? / ____

Mm/ yyyy

(Month 01-12, Year 1800 – 2013)

6. What was the approximate annual gross revenue of your business in 2011?

\$____,____,____.00

(0 or \$1,000 - \$25,000,000)

6a. What was the approximate annual gross revenue of your business in 2012?

\$____,____,____.00

(0 or \$1,000 - \$25,000,000)

6b. Over the last 12 months my company's revenues (**Check one**)

Increased a lot	Increased a little	Stayed the same	Decreased a little	Decreased a lot
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Currently, how many people (full and part-time), including yourself, does your business employ?

Number of Full-Time Employees _____ (**35 or more hours per week**)

Number of Part-Time Employees _____ (**less than 35 hours per week**)

PLEASE NOTE: The estimated burden for completing this form is less than 5 minutes per response. You are not required to respond to any collection of information unless it displays a currently valid OMB approval number. Comments on the burden should be sent to U.S. Small Business Administration, Chief, AIB, 409 3rd St., S.W., Washington, D.C. 20416 and Desk Officer for the Small Business Administration, Office of Management and Budget, New Executive Building, Room 10202, Washington, D.C. 20503. OMB Approval 3245-0351. PLEASE DO NOT SEND FORMS TO OMB.

THANK YOU

Appendix IV – Follow-up Impact Survey Questions and Response Distribution

Survey Question (Follow-up Impact)	Response Distribution
Q1. Are you currently in business?	n=3467
<input type="checkbox"/> Yes	1977/80%
<input type="checkbox"/> No	697/20%
Q1a. If yes, when was the business started?	n=2770
MM (valid date range)	01-12
YYYY (valid date range)	1866-2013
Q2. Did you decide to go into business as a result of the assistance you received from you counselor?	n=3467
<input type="checkbox"/> Yes	826/24%
<input type="checkbox"/> No	2641/76%
Q3. If you are not currently in business, when do you plan on starting a business?	n=697
<input type="checkbox"/> Within 30 days	32/5%
<input type="checkbox"/> 31 – 90 days	69/10%
<input type="checkbox"/> 91- 120 days	98/14%
<input type="checkbox"/> No idea at this time	498/71%
Q4. If you are not currently in business, have you ever been in business?	n=697
<input type="checkbox"/> Yes	252/36%
<input type="checkbox"/> No	445/64%
Q4b. If yes, when was the business started?	n=252
Q5. Did you sell or close your business?	n=252
<input type="checkbox"/> Close your business	215/85%
<input type="checkbox"/> Sell your business	37/15%
Q5b. When did your sell or close your business?	n=252
Q6. When did your sell or close your business?	n=252
Q6a. What was the approximate annual gross revenue of your business in	n=3003
2011	\$505,671
2012	\$541,380
Q6b. Over the past 12 months my company's revenues	n=3003
<input type="checkbox"/> Decreased a lot	361/12%
<input type="checkbox"/> Decreased a little	272/9%

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<i>Survey Question (Follow-up Impact)</i>	<i>Response Distribution</i>
<input type="checkbox"/> Increased a little	939/31%
<input type="checkbox"/> Increased a lot	697/23%
Q7. Currently, how many people (full and part-time), including yourself, does your business employ?	n=3003
<input type="checkbox"/> Full-time	4.5
<input type="checkbox"/> Part-time	2.3

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Appendix V.A - Initial 2012 Clients – Final Regression Models (number of asterisks indicate level of significance)

	DV: Increase Sales			DV: Profit			DV: Hire Staff			DV: Start-Up		
Parameter	Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > ChiSq	
Intercept	2.5982	<.0001	***	2.2628	<.0001	***	1.9714	<.0001	***	-1.1938	0.1495	
Hours 10+ vs. 0-2	0.7241	<.0001	***	0.5516	<.0001	***	0.5948	<.0001	***	0.9003	0.0001	***
Hours 6-10 vs. 0-2	0.5246	<.0001	***	0.3238	<.0001	***	0.3162	<.0001	***	0.625	0.0133	**
Hours 3-5 vs. 0-2	0.3239	<.0001	***	0.3043	<.0001	***	0.2516	<.0001	***	0.3831	0.1244	
lnRev2011	-0.0068	0.577		0.0118	0.3258		0.0608	<.0001	***	-0.071	0.1438	
lnEmp2011	0.0363	0.114		0.0484	0.0321		0.0726	0.0013	***	0.105	0.2521	
ssource SBDC vs. WBC	0.0809	0.355		0.1642	0.0565		0.0292	0.7318		0.1348	0.6937	
ssource SCORE vs. WBC	0.0089	0.922		0.1093	0.2198		-0.0915	0.3004		-0.1731	0.629	
In-Business vs. Start-Up	0.0490	0.582		-0.0372	0.6702		0.0948	0.2743		-1.7014	<.0001	***!
Nascent vs. Start-Up	0.1975	0.679		-0.6794	0.2968		0.2890	0.586		-0.4657	0.7164	
Business Plan	0.2747	<.0001	***	0.2378	<.0001	***	0.2127	<.0001	***	1.2934	<.0001	***
Marketing Plan	0.4831	<.0001	***	0.3737	<.0001	***	0.0569	0.1491		0.3892	0.0157	**
Pricing Strategy	0.2447	<.0001	***	0.3396	<.0001	***	0.0600	0.1903		0.6102	0.0002	***
General Management	0.2237	<.0001	***	0.3043	<.0001	***	0.3641	<.0001	***	0.3527	0.0225	**
Financial Strategy	0.1686	0.000	***	0.2908	<.0001	***	0.0855	0.0509	*	-0.2728	0.1017	
Feasibility Plan	-0.0468	0.387		-0.0734	0.1668		-0.0474	0.3718		0.2265	0.2007	
Construction	0.1235	0.067	*	0.0640	0.3326		-0.0798	0.2245		-0.1006	0.7273	
Manufacturing	0.0790	0.221		0.0227	0.7223		-0.0813	0.2022		0.00722	0.9773	
Wholesale	-0.0002	0.998		-0.0242	0.7965		-0.3269	0.0005	***!	-0.0689	0.8638	
Retail	0.0704	0.249		0.0630	0.2943		-0.1234	0.0414	**!	0.3543	0.1234	
Restaurant	0.1170	0.117		0.1107	0.1335		-0.0762	0.2983		0.2879	0.2526	
Transportation	0.0745	0.516		0.1111	0.3276		-0.0171	0.8814		-0.0181	0.9691	
Finance	0.2012	0.107		0.1271	0.3048		0.1106	0.3687		0.1042	0.8358	
Engineering	0.1064	0.052	*	0.0355	0.512		-0.0401	0.4561		-0.3199	0.1687	
Geography Rural vs. Urban	0.0025	0.956		0.0582	0.1995		-0.0224	0.6197		0.1835	0.2982	
Geography Suburban vs. Urban	-0.0414	0.332		-0.0213	0.6136		-0.0502	0.2326		0.0139	0.9353	
vet National Guard member vs. Non-Vet	0.2847	0.391		0.6057	0.0615	*	0.4778	0.1651		-11.3266	0.9762	
vet Reservist vs. Non-Vet	-0.4529	0.149		-0.2250	0.4627		-0.5247	0.0847	*!	1.1583	0.1925	
vet Service Disabled Veteran vs. Non-Vet	-0.1224	0.350		-0.2768	0.0303	**!	-0.0935	0.4616		-0.0935	0.8539	
vet Veteran vs. Non-Vet	-0.1019	0.130		-0.1282	0.0526	*!	-0.1636	0.013	**!	0.0382	0.883	

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	DV: Increase Sales			DV: Profit			DV: Hire Staff			DV: Start-Up		
Parameter	Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > ChiSq	
Intercept	2.5982	<.0001	***	2.2628	<.0001	***	1.9714	<.0001	***	-1.1938	0.1495	
Age	-0.1909	0.029	**!	-0.0874	0.3092		-0.1857	0.0302	**!	-0.4755	0.141	
Age*Age	0.0236	0.036	**	0.0075	0.5006		0.0188	0.0887	*	0.0494	0.2498	
Firm Age	-0.0006	0.735		-0.0005	0.7854		-0.0017	0.3212		-0.021	0.035	**!
Race Am. Ind. vs. White	0.1460	0.303		-0.0639	0.6439		0.0644	0.6428		0.2983	0.5789	
Race Asian vs. White	0.0336	0.729		-0.1067	0.2691		0.0026	0.9782		0.3013	0.4255	
Race Black vs. White	-0.0230	0.708		-0.0158	0.7923		0.0431	0.4713		-0.0738	0.759	
Race Haw PI vs. White	-0.0275	0.908		-0.1023	0.6579		-0.0378	0.8692		-0.0686	0.9384	
Race His/La vs. White	-0.0398	0.555		-0.0938	0.1584		0.0203	0.7603		0.4986	0.0272	**
Race Multi vs. White	0.2367	0.273		0.2124	0.313		0.3411	0.1029		-0.675	0.5264	
Gender Female vs. Male	0.1183	0.002	***	0.0531	0.166		0.0723	0.0592	*	0.032	0.8334	
Had Additional Training	0.1124	0.002	***	0.0919	0.0114	**	0.0701	0.0533	*	0.2484	0.0855	*
DV Mean	3.4232			3.3222			3.0262			0.09395		
										97		
R-squared	0.3095			0.306067			0.215217			0.2397		
N	2720			2654			2632			2831		

* p < 0.10, ** p < 0.05, *** p < 0.01, ! Significant & Negative –

Only revenues > 0

NOTE: only revenues and employees > 0 were used

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APPENDIX V.B - Initial 2012 Clients - Full Regression Models (number of asterisks indicate level of significance)

	DV: Increase Sales			DV: Profit			DV: Hire Staff			DV: Startup (logit)		
Parameter	Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > ChiSq	
Intercept	2.4249	<.0001	***	2.4829	<.0001	***	2.2546	<.0001		-1.6201	0.2884	
Over 10 hours of counseling	0.6701	0.0341	**	0.0595	0.847		0.3301	0.2656		2.2042	0.1163	
6 to 10 hours of counseling	0.8793	0.0104	**	0.3380	0.3125		0.0869	0.7891		0.3812	0.8023	
3 to 5 hours of counseling	0.4875	0.1211		0.4716	0.1239		-0.1145	0.6983		-0.085	0.9567	
0 to 2 hours of counseling	0.0000	.		0.0000	.		0.0000	.		0	.	
ln(REV2011)	0.0019	0.9325		-0.0018	0.9345		0.0264	0.209		-0.0442	0.7241	
ln(REV2011) with over 10 hours of counseling	0.0103	0.7462		0.0431	0.1633		0.0007	0.9824		-0.137	0.3451	
ln(REV2011) with 6 to 10 hours of counseling	-0.0114	0.7165		-0.0086	0.7797		0.0367	0.2122		0.0541	0.7358	
ln(REV2011) with 3 to 5 hours of counseling	-0.0344	0.3179		-0.0098	0.7717		0.0164	0.6154		0.0218	0.8894	
ln(REV2011) with 0 to 2 hours of counseling	0.0000	.		0.0000	.		0.0000	.		0	.	
ln(Full+Part Emp2011)	0.0568	0.2052		0.0573	0.1888		0.0251	0.5484		0.1405	0.5837	
ln(Full+Part Emp2011) with over 10 hours of counseling	-0.0633	0.3005		-0.0352	0.5543		0.1285	0.0251	**	0.0792	0.7865	
ln(Full+Part Emp2011) with 6 to 10 hours of counseling	-0.0270	0.6647		-0.0511	0.4044		-0.0269	0.6461		-0.133	0.6887	
ln(Full+Part Emp2011) with 3 to 5 hours of counseling	0.0173	0.8035		0.0536	0.4268		0.0167	0.8		-0.0787	0.8099	
ln(Full+Part Emp2011) with 0 to 2 hours of counseling	0.0000	.		0.0000	.		0.0000	.		0	.	
ssource SBDC	0.0890	0.3116		0.1666	0.0532	*	0.0559	0.497		0.1346	0.7007	
ssource SCORE	0.0271	0.7666		0.1239	0.1658		-0.0627	0.4632		-0.1086	0.7669	
ssource WBC	0.0000	.		0.0000	.		0.0000	.		0	.	
Business Stage IB	0.0531	0.5517		-0.0332	0.7037		0.1276	0.1269		-1.6898	<.0001	***!

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	DV: Increase Sales			DV: Profit			DV: Hire Staff			DV: Startup (logit)		
Parameter	Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > ChiSq	
Business Stage N	0.2747	0.5654		-0.5394	0.4061		0.0597	0.9069		-0.4194	0.7445	
Business Stage S	0.0000	.		0.0000	.		0.0000	.		0	.	
q4_i /*Business Plan*/	0.2691	<.0001	***	0.2025	<.0001	***	0.1766	<.0001	***	1.1854	<.0001	***
q4_ii /*Marketing Plan*/	0.4264	<.0001	***	0.3650	<.0001	***	0.0811	0.0474	**	0.4576	0.0092	***
q4_iii /*Promotion Plan*/	0.0864	0.0852	*	-0.0359	0.4673		-0.1034	0.0305	**!	-0.1859	0.3109	
q4_iv /*Pricing Strategy*/	0.1948	<.0001	***	0.2795	<.0001	***	0.0017	0.97		0.5606	0.0012	***
q4_v /*Cash Flow*/	0.0422	0.3726		0.2146	<.0001	***	0.0443	0.3234		0.3368	0.0551	*
q4_vi /*General Management*/	0.1901	<.0001	***	0.2490	<.0001	***	0.2451	<.0001	***	0.3467	0.0362	**
q4_vii /*Loan Package*/	0.0402	0.4378		0.0609	0.2298		0.1561	0.0013	***	0.4283	0.0147	**
q4_viii /*Hiring Plan*/	0.0814	0.1886		0.1255	0.0388	**	0.7147	<.0001	***	0.0222	0.9176	
q4_ix /*Production Plan*/	0.1017	0.1393		0.0358	0.5962		0.0005	0.9942		-0.00222	0.9924	
q4_x /*Financial Strategy*/	0.1153	0.0143	**	0.1918	<.0001	***	0.0062	0.8888		-0.4288	0.0176	**!
q4_xi /*Web strategy*/	0.1327	0.0082	***	0.0889	0.0727	*	-0.0437	0.361		0.011	0.9521	
q4_xii /*Close/Sell*/	-0.0737	0.3794		-0.0031	0.9698		-0.0129	0.8699		-0.3157	0.2891	
q4_xiii /*Purchasing Strategy*/	0.0471	0.489		0.1179	0.0735	*	-0.0075	0.9071		0.2039	0.3606	
q4_xiv /*Feasibility Plan*/	-0.0984	0.0808	*	-0.1234	0.025	**!	-0.1092	0.04	**!	0.166	0.386	
q4_xv /*Staff Training Plan*/	-0.0034	0.9615		0.0048	0.9451		0.2116	0.0014	***	-0.2399	0.3458	
q4_xvi /*Distribution Plan*/	0.0146	0.8597		-0.0246	0.7605		-0.0865	0.2662		0.3804	0.1328	
q4_xvii /*International Trade*/	0.1359	0.127		0.0467	0.594		-0.0489	0.5603		-0.5468	0.127	
Industry Accommodation and Food Service	0.1601	0.0922		0.1355	0.1469		-0.0316	0.7237		0.4599	0.2137	

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	DV: Increase Sales			DV: Profit			DV: Hire Staff			DV: Startup (logit)		
Parameter	Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > t		Estimate	Pr > ChiSq	
Industry Agriculture, Forestry, Fishing and Hunting	0.0048	0.9696		0.0659	0.5928		0.0764	0.5164		0.2971	0.5356	
Industry Arts, Entertainment, and Recreation	0.0703	0.4815		-0.0088	0.9292		-0.0021	0.9827		0.3603	0.3698	
Industry Construction	0.1581	0.0746	*	0.0930	0.2839		-0.0238	0.7748		0.1795	0.6482	
Industry Educational Services	0.0899	0.4246		0.1728	0.1194		0.0605	0.5695		0.5901	0.1772	
Industry Finance and Insurance	0.2570	0.0632	*	0.1858	0.1727		0.1606	0.2185		0.4231	0.4606	
Industry Health Care and Social Assistance	0.0756	0.4198		0.0834	0.3646		0.1726	0.0504	**	0.2437	0.5359	
Industry Information	0.2367	0.0839	*	0.0161	0.905		0.0595	0.6514		0.4985	0.3458	
Industry Management of Companies and Enterprises	-0.0456	0.8013		0.0572	0.7485		0.1503	0.3796		1.3301	0.0238	**
Industry Manufacturing	0.1074	0.2226		0.0606	0.4838		0.0041	0.9605		0.2072	0.5814	
Industry Mining, Quarrying, Oil and Gas Extraction	-0.0027	0.9916		-0.2931	0.2467		-0.1090	0.6426		-13.5612	0.9854	
Industry Professional, Scientific & Technical Services	0.1519	0.0598	*	0.0815	0.3035		0.0096	0.8997		0.0255	0.9432	
Industry Public Administration	0.0316	0.935		-0.0615	0.8701		-0.5540	0.1241		-13.2396	0.9925	
Industry Real Estate, Rental, Leasing	-0.0390	0.77		-0.0450	0.729		-0.0313	0.8028		-0.0744	0.8975	
Industry Retail Sales	-0.8300	0.3772		0.2396	0.7927		1.1736	0.1792		-14.2229	0.9969	
Industry Retail Trade	0.1028	0.2229		0.0759	0.3584		-0.0830	0.2974		0.5498	0.1214	
Industry Transportation	0.1085	0.4001		0.1298	0.3057		0.0149	0.9036		0.2255	0.6768	
Industry Utilities	-0.2367	0.2719		-0.1774	0.3969		-0.2771	0.1672		-0.5867	0.5933	
Industry Warehousing	-0.4368	0.3584		-0.4048	0.4471		-0.0951	0.8298		1.4908	0.2258	
Industry Wholesale Trade	0.0314	0.7817		-0.0120	0.914		-0.2676	0.0124	**	0.1194	0.8086	
Industry Other	0.0000	.		0.0000	.		0.0000	.		0	.	
q11 1:Rural	0.0070	0.8819		0.0439	0.3409		0.0043	0.922		0.1144	0.5388	

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	DV: Increase Sales		DV: Profit		DV: Hire Staff		DV: Startup (logit)				
Parameter	Estimate	Pr > t	Estimate	Pr > t	Estimate	Pr > t	Estimate	Pr > ChiSq			
q11 2:Suburban	-0.0386	0.3688	-0.0291	0.4909	-0.0286	0.482	0.014	0.9361			
q11 3:Urban	0.0000	.	0.0000	.	0.0000	.	0	.			
Firm Age	-0.0007	0.6833	-0.0004	0.8193	-0.0012	0.4636	-0.0188	0.0654	*!		
q17 1:Veteran	-0.0936	0.168	-0.1158	0.0809	*!	-0.1406	0.0273	***!	0.0734	0.7843	
q17 2:Service Disabled Veteran	-0.1147	0.3829	-0.2659	0.0372	**	-0.0422	0.7299	-0.0544	0.9173		
q17 3:Reservist	-0.4386	0.1666	-0.1730	0.5737		-0.4415	0.1343	1.3973	0.1256		
q17 4:National Guard	0.2307	0.49	0.5361	0.0984	*	0.4645	0.1627	-13.3374	0.9892		
q17 5:Non-Veteran	0.0000	.	0.0000	.		0.0000	.	0	.		
Education Associates degree	0.0041	0.982	-0.1586	0.4055		-0.0260	0.8848	-0.0911	0.8988		
Education College degree	-0.0320	0.8564	-0.2059	0.264		0.0238	0.8905	-0.2419	0.7266		
Education Graduate/professional degree	-0.0158	0.9294	-0.1881	0.3118		-0.0120	0.9453	-0.1607	0.8184		
Education High school diploma/Equivalent	-0.0758	0.6822	-0.1684	0.3802		-0.0673	0.7096	0.0888	0.9021		
Education Some college	0.0655	0.7135	-0.0849	0.6483		-0.0173	0.9213	-0.1956	0.7802		
Education Some high school	0.0000	.	0.0000	.		0.0000	.	0	.		
Race Multi	0.2312	0.2864	0.2166	0.3034		0.3150	0.1184	-0.7462	0.4905		
Race White	0.0000	.	0.0000	.		0.0000	.	0	.		
Age	-0.1879	0.0329	***!	-0.0683	0.4292	-0.1583	0.0569	*!	-0.5074	0.1275	
AGE^2	0.0229	0.0432	**	0.0054	0.6251	0.0164	0.1267	0.0529	0.2312		
Female	0.1195	0.0026	***	0.0614	0.1144	0.0795	0.0337	0.0759	0.6332		
Male	0.0000	.	0.0000	.		0.0000	.	0	.		
Additional Training	0.1042	0.0053	***	0.0881	0.0161	**	0.0461	0.191	0.2621	0.0782	*
No Additional Training	0.0000	.	0.0000	.		0.0000	.	0	.		
	R-square	0.320783		R-square	0.32491		0.2893		R-square	0.2642	
	N	2720		N	2654		82		N	2831	

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APPENDIX VI.A - Follow-up 2011 Clients - Final Regression Models (number of asterisks indicate level of significance)

Parameter	DV: Ln(\$ Rev2012)			DV: Ln(2012 Employees)		
	Estimate	Pr > t		Estimate	Pr > t	
Intercept	1.6714	<.0001	***	-0.7087	0.004	***!
3+ hours of counseling [vs. < 3 hours]	0.7843	0.007	***	0.4650	0.045	**
ln(REV2011)	0.8744	<.0001	***	0.1343	<.0001	***
ln(REV2011) with 3+ hours of counseling	-0.0680	0.02	**!	-0.0411	0.064	*!
ln(Full+Part Emp2011)	0.0845	0.05	**	0.7124	<.0001	***
ln(Full+Part Emp2011) with 3+ hours of counseling	0.0875	0.08	*	0.0796	0.045	**
Source: SBDC [vs. WBC]	0.0885	0.43		-0.2098	0.021	**!
Source: SCORE [vs. WBC]	0.1186	0.29		-0.1159	0.205	
Business Stage: In-Business [vs. Start up]	-0.4212	<.0001	***!	-0.1816	0.000	***!
Business Stage: Nascent [vs. Start up]	-0.1043	0.759		0.0586	0.850	
q4_ii : Loan Package	0.1368	0.010	***	0.1054	0.013	**
q4_xii: Distribution Plan	0.0811	0.387		0.1641	0.035	**
q4_x: Pricing Strategy	-0.0393	0.398		-0.0341	0.364	
q4_xiii: Cash Flow Analysis	0.0747	0.087	*	-0.0836	0.017	**!
q4_xv: International Trade	0.2031	0.043	**	-0.1146	0.149	
Construction	0.1903	0.022	**	-0.0962	0.156	
Manufacturing	0.0994	0.112		0.0791	0.115	
Wholesale	0.2617	0.012	**	-0.1121	0.177	
Retail	0.1063	0.087	*	-0.1243	0.012	**!
Restaurant	0.1627	0.101		0.1682	0.034	**
Transportation	0.1192	0.472		-0.2338	0.083	*!
Financial, Insurance, and Real Estate	-0.0141	0.915		-0.2504	0.016	**!
Engineering	0.2764	0.038	**	-0.0058	0.956	
Geography: Rural [vs. not Rural]	-0.1068	0.015	**!	-0.0494	0.162	
q17 1:Veteran [vs. Not Veteran]	-0.0577	0.418		0.0024	0.967	
q17 2:Service Disabled Veteran [vs. Not Veteran]	0.1663	0.220		0.0323	0.755	
q17 3:Reservist [vs. Not Veteran]	0.0185	0.932		0.2955	0.084	*
q17 4:National Guard [vs. Not Veteran]	0.2618	0.392		0.5096	0.035	**

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	DV: Ln(\$ Rev2012)			DV: Ln(2012 Employees)		
Parameter	Estimate	Pr > t		Estimate	Pr > t	
Age Category [18-24=1, 25-34=2, 35-44=3, 45-54=4, 55-64=5, 65-74=6, 75+=7]	0.1225	0.212		-0.0494	0.527	
Age Category ^ 2	-0.0230	0.067	*!	0.0042	0.677	
Firm Age [in years]	-0.0010	0.535		0.0003	0.843	
Race: American Indian / Native American [vs. White]	-0.0445	0.783		0.1196	0.364	
Race Asian [vs. White]	0.0201	0.864		-0.0934	0.316	
Race Black/African American [vs. White]	-0.2289	0.007	***!	0.0183	0.788	
Race Hawaiian/Pacific Islander [vs. White]	0.3304	0.622		0.0650	0.902	
Race Multiple Race Selections [vs. White]	-0.1154	0.509		-0.1021	0.475	
Race No Answer [vs. White]	-0.0823	0.421		-0.0801	0.341	
Ethnicity - Hispanic/Latino [vs. Not Hispanic/Latino]	-0.1534	0.071	*!	0.1062	0.124	
q16: Male [vs. Both Male and Female owner]	0.0501	0.323		-0.0938	0.020	**!
q16: Female [vs. Both Male and Female owner]	-0.0296	0.579		-0.0548	0.199	
DV Mean	12.0324			1.423		
R-squared	0.8824			0.801544		
N	1281			1234		

*p < 0.10, ** p < 0.05, *** p < 0.01,

! Significant & Negative

Note: only revenues and employess > 0 were used

APPENDIX VI. B - Follow-up 2011 Clients - Full Regression Models (number of asterisks indicate level of significance)

	DV: ln(Rev2012)			DV: ln(2012 Employees)		
Parameter	Estimate	Pr > t		Estimate	Pr > t	
Intercept	1.7679	<.0001	***	-0.6718	0.0092	***!
3 or more hours of counseling	0.7053	0.02	**	0.4853	0.0405	
ln(REV2011)	0.8673	<.0001	***	0.1341	<.0001	***
ln(REV2011) with 3 or more hours of counseling	-0.0603	0.03	**!	-0.0428	0.0583	*!
ln(Full+Part Emp2011)	0.0894	0.04	**	0.6975	<.0001	***
ln(Full+Part Emp2011) with 3 or more hours of counseling	0.0741	0.14		0.0842	0.0359	**
ssource SBDC	0.0928	0.41		-0.2071	0.0238	**!
ssource SCORE	0.1215	0.29		-0.1210	0.1909	
ssource WBC	0.0000	.		0.0000	.	
Business Stage IB	-0.3968	<.0001	***!	-0.1750	0.001	***!
Business Stage N	-0.1193	0.73		0.0457	0.8835	
Business Stage S	0.0000	.		0.0000	.	
q4_i /*Business Plan*/	0.0404	0.34		-0.0116	0.7325	
q4_ii /*Loan Package*/	0.1220	0.03	**	0.0912	0.0381	**
q4_iii /*Purchasing Strategy*/	0.0349	0.67		0.0298	0.6468	
q4_iv /*Marketing Plan*/	0.0262	0.55		-0.0215	0.5384	
q4_v /*Hiring Plan*/	0.0027	0.97		-0.0298	0.5728	
q4_vi /*Feasibility Plan*/	0.0038	0.95		-0.0300	0.5445	
q4_vii /*Promotional Plan*/	-0.0763	0.16		-0.0666	0.1249	
q4_viii /*Training Plan*/	0.0437	0.59		-0.0230	0.7177	

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q4_ix /*Production Plan*/	-0.0750	0.40		-0.0657	0.3578	
q4_x /*Pricing Strat*/	-0.0626	0.20		-0.0174	0.6613	
q4_xi /*Financial strategy*/	0.0675	0.15		0.0493	0.189	
q4_xii /*Distribution Plan*/	0.0645	0.51		0.1739	0.0318	**
q4_xiii /*Cash Flow Analysis*/	0.0300	0.53		-0.1014	0.0081	***!
q4_xiv /*Web-based strat*/	-0.0643	0.25		-0.0107	0.81	
q4_xv /*International Trade*/	0.1944	0.06	*	-0.0825	0.3085	
q4_xvi /*General Mgmt*/	0.1165	0.01	***	0.0373	0.2861	
q10_i 1:Construction	0.1677	0.06	*	-0.0888	0.2273	
q10_i 2:Manufacturing	0.1019	0.16		0.0912	0.1178	
q10_i 3:Consulting	0.0053	0.95		-0.0863	0.1764	
q10_i 4:Wholesale	0.2578	0.02	**	-0.1085	0.2164	
q10_i 5:Finance, Insurance and Real Estate	-0.0472	0.73		-0.2514	0.0205	**!
q10_i 6:Entertainment	0.0066	0.97		-0.0513	0.6822	
q10_i 7:Retail	0.0970	0.17		-0.1188	0.0354	**!
q10_i 8:Restaurant and/or Eating and Drinking	0.1559	0.14		0.1977	0.0196	**
q10_i 9:Engineering	0.2925	0.04	**	-0.0138	0.8997	
q10_i 10:Publishing	0.0176	0.91		-0.0613	0.621	
q10_i 11:Education	-0.1524	0.18		0.1026	0.2712	
q10_i 12:Service	0.0399	0.59		0.0471	0.4349	
q10_i 13:Health Care	-0.1484	0.16		0.0919	0.2771	
q10_i 14:Day Care	-0.1338	0.51		0.3600	0.0251	**
q10_i 15:Transportation	0.1391	0.41		-0.1938	0.1627	
q10_i 16:Technology	0.0347	0.72		-0.0085	0.9117	
q10_i 17:Health and Wellness and/or Fitness	0.0434	0.74		0.0959	0.3619	
q10_i 18:Other	0.0000	.		0.0000	.	
q11 1:Rural	-0.0992	0.05	**!	-0.0530	0.1906	

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q11 2:Suburban	0.0067	0.88		0.0003	0.9923	
q11 3:Urban	0.0000	.		0.0000	.	
Firm Age	-0.0004	0.80		0.0005	0.7164	
q17 1:Veteran	-0.0650	0.36		-0.0010	0.9858	
q17 2:Service Disabled Veteran	0.1799	0.19		0.0557	0.5928	
q17 3:Reservist	0.0764	0.72		0.2924	0.089	*
q17 4:National Guard	0.2598	0.40		0.4339	0.0764	*
q17 5:Non-Veteran	0.0000	.		0.0000	.	
Race Am Ind.	-0.0561	0.73		0.1239	0.35	
Race Asian	0.0004	1.00		-0.0828	0.3796	
Race Black	-0.2372	0.01	***!	0.0175	0.8	
Race Haw PI	0.4651	0.49		0.1133	0.8313	
Race No Ans.	-0.0581	0.57		-0.0741	0.3821	
Race White	0.0000	.		0.0000	.	
Eth Hisp./L	-0.1717	0.05	**!	0.1042	0.1346	
Eth Not Hisp./L	0.0000	.		0.0000	.	
Age (18-24=1, 25-34=2, 35-44=3, 45-54=4, 55-64=5, 65-74=6, 75+=7)	0.0955	0.34		-0.0602	0.4477	
Age^2	-0.0189	0.14		0.0064	0.5301	
q16 1:Male	0.0432	0.40		-0.0939	0.0207	**!
q16 2:Female	-0.0224	0.68		-0.0675	0.1188	
q21 /* Did you use any other SBA resources? 1 = Yes*/	-0.0210	0.29		-0.0053	0.7386	
R-squared	0.885					
N	1279					