

**Practical, Purposeful Pedagogy: An Analysis of a Model Outreach
Program to Prepare Primary and Secondary School
Educators to Incorporate Economics
Across the Curriculum**

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The South Jersey Summer Institute for Educators is an innovative partnership between business and education designed to help teachers, counselors, technology specialists and librarians serving grades 4-12 to better understand the regional economy and to prepare students for the workforce. Five hundred teachers have studied employee skills, attitudes and characteristics that businesses seek. Teachers design new curriculum that has reached more than 50,000 students over the last 20 years. Educators tour businesses and discuss issues with legislators, government regulators, and CEOs of big and small enterprises and on-profits. This study assesses the outcomes of the program for efficacy and persistence.

INTRODUCTION

The goal of entrepreneurship and business programs in higher education is to equip tomorrow's business owners and managers for the challenges of venture creation and leadership for economic development in the communities that they serve. In a separate but corresponding universe, the educators within the K-12 educational system are consigned the task of equipping the future workforce with a foundation of entrepreneurial and technical knowledge and skills upon which organizational leaders can build. Chief among these is a fundamental appreciation for the economic context in which work takes place. The needs of that economy are increasingly described by business leaders in entrepreneurial terms and as "cross-industry skills." Such workforce attributes include adaptability, innovation, capacity to operate in a rapid time-to-market environment, along with the classic skill set of problem-solving/critical thinking, oral and written communications, teamwork and math and technology. Leaders in both the entrepreneurial and education communities appear to agree that there is a gap in the workforce needs and the actual preparation of students at the K-12 level for employment in the agile economy and for advancement to higher education.

This study looks at one response to the perceived gap in economics preparation that was designed and sustained by business leaders in one economic region in New Jersey. “The South Jersey Summer Institute for Educators: Economics, Industry and Education Exploring the Issues” was established as one way to address the disparity in workforce readiness and economic understanding of youth. Business and economics programs that seek to establish outreach programs within 4-12 classrooms and schools in their region will find exemplary ‘best practices’ learned and refined over twenty years from the execution of this model program.

There is a concern in the literature on professional education that state departments of education, school districts and educators themselves behave as if participation in professional development equals results. Mezrich (2010) opined that “an overwhelming majority of school systems know very little about what educators learn through professional development, how effectively they use what they learn, and to what extent students benefit.” This study was undertaken as a way to provide an understanding of the longitudinal outcomes of one such professional development program operated on the periphery of the educational system, but in collaboration with it. As Mezrich points out, “Educators responsible for organizing professional development must create and facilitate learning experiences that teachers value, and that cause teachers to develop and apply new knowledge, skills, and behaviors that will benefit their students.” The results presented in this paper demonstrate one such successful set of outcomes, not just at the point of initial exposure of the educators to new learning, but after many years of replicating the process and making it available for succeeding generations of school teachers in one economic region.

The purpose of this study was to determine the overall value and efficacy of teacher training in economics when it is directed by a regional business organization. To that end, the study addresses three basic research questions: 1) How well did the educational program satisfy the short-term expectations of educators who take part in this teacher training experience?; and 2) What are the educators’ expectations for making use of their experience upon completion of the program?; and 3) What are the longer-term effects of teacher training when educators return to the classroom after such a program? To address the first two research questions, we first conducted a multi-year analysis of annual assessment data collected from participating teachers by the organizers of the training program. The third research question was addressed in 2011, when we conducted a new survey of the cohort from 1997 – 2011: fourteen years of the program for which complete records for educators were available. The survey asked respondents to describe the way they incorporated learning from the Institute into their curriculum and which instructional techniques they used, as well as how they worked with colleagues to multiply the effects of their learning.

We follow a model based on one of the best known evaluation methodology for judging training programs - Kirkpatrick's (1994) ***Four Level Evaluation Model*** that consists of:

- *Reaction* - how the learners (educators) react to the learning process (measure: exit survey ‘satisfaction factor’)
- *Learning* - the extent to which the learners (educators) gain knowledge and skills (measure: ability of educators to design a useful curriculum and lesson plans based on learning during the Institute)
- *Behavior* - capability to perform the learned skills while on the job (measure: educators self-report of efficacy and persistence in use of curriculum and learning from the SJSI.)
- *Results* – includes student outcomes (measure: educators self-report of the impact on students.)

CHALLENGES AND OPPORTUNITIES: PREPARING EDUCATORS FOR THE AGILE ECONOMY

A National Council on Economic Education study (Watts, 2006) assessed the state of K-12 economics education and found little emphasis on economics in the curricula. The NCEE study stressed that most U.S. high school graduates *do not* take an economics course in high school. Moreover, most

secondary students who *do* enroll in higher education today will never take a college course in economics. It cited limited time in the curriculum devoted to economics and the limited training teachers have in economics. The dearth of K-12 economics and workforce readiness education points to the merits of infusing concepts and practices throughout the curriculum. A Conference Board study (Casner-Lotto and Wright, 2009) pointed to the need to focus philanthropic dollars and public-policy discussions on ways to link K-12, technical-school and college education to the workforce readiness skills.

Scholarly work has shown little systematic interest in the efforts of industry in the United States to forge relationships that foster better economics education for instructors at the K-12 level. One design for study of collaboration between education and industry in the United Kingdom (Abbot, Huddleston and Foley, 1993) showed that many of the initiatives have been developed with government support and that economics and business studies are subject areas that, at all educational levels, have a long tradition of developing links with the business community. Jenkins and Nelson (1999) echo many writers who argue that, "It is widely recognized that the teacher is the key to what is taught in the classroom. Without well-trained teachers, the best written curriculum may not be taught in the classroom."

One such effort, The South Jersey Institute for Educators, is a long-term program that challenges teachers to incorporate these issues into the classroom. Many industry-education programs take a more traditional approach of engaging students directly, forming mentorships and internships and other forms of outreach to classrooms. While these are laudable programs, they can effectively reach only a small percentage of students enrolled at the K-12 level. The South Jersey Institute for Educators took a different approach aimed at reaching the "gatekeepers" in the regional schools. The reach of individual teachers can be as large as 100 or more students in one year alone, and perhaps thousands in a lifetime career, thus creating a multiplier effect and an ongoing champion who is trained to manage the learning process. The authors undertook this analysis of the outcomes of the SJSIE program to help potential sponsors of outreach programs understand this model and a set of best practices that may be replicated in other regions of the country.

For twenty years, the Chamber of Commerce of Southern New Jersey has conducted a program for teachers of grades 4 through 12 aimed at addressing the readiness of the future workforce. The South Jersey Institute for Educators exposes teachers to the regional economy and emphasizes the employee skills, traits and characteristics that businesses seek. The three-week Institute has graduated nearly 500 area teachers who incorporated the lessons they learned into their teachings and reached more than 50,000 students. Educators tour area businesses and institutions such as the regional U.S. Federal Reserve Bank in Philadelphia. They engage in discussions with legislators, government regulators, and CEOs of both Fortune 500 and small business enterprises. All educators undertake team projects that will modify and/or develop curriculum and creative activities for use in the classroom.

The New Jersey Department of Education has recognized the program's validity, thus providing a strong incentive for teachers to invest their professional development time. The Institute meets New Jersey's Workplace Readiness Standards of the Core Curriculum Standards by enabling educators to better prepare students for employment. Participants earn five years of continuing education credits. Teachers also receive a stipend, materials and transportation to and from tours.

This paper provides an analysis based on the assessments conducted during the last 14 years of the program's 20 year history. It also offers a newly conducted longitudinal assessment of educators across the years to address the persistence, retention and perceived impact of the program. It addresses changes made in response to learning outcomes. This paper should be of interest to who want to develop outreach programs that help communities and regions create collaborative ventures to improve entrepreneurial and economics education in the K-12 schools and deliver more relevant and impactful programs.

HISTORICAL BACKGROUND

The South Jersey Summer Institute was founded in 1992 by a former Mobil plant manager who recognized a growing skills gap in his young workforce and determined to find an approach to reach the people who shape the future workforce – the educators of the region. The original program focused

almost entirely on manufacturing and recruited teachers from just two counties. Within two years, the regional Chamber of Commerce assumed management of the program and broadened its scope to include a broader range of industries and subjects other than manufacturing. The scope was also expanded to include teachers from six Southern New Jersey counties and to reach into the elementary grades. Placing the Institute under the aegis of the Chamber of Commerce was a critical step because logistically, the Institute is a year-round venture. Staff works continuously to secure speakers, tours, and business sponsors for teacher scholarships and support for the fixed expenses of the program. Recruiting similarly begins early in the calendar year when they reach out to the more than 600 schools in Southern New Jersey to attract educators to apply.

The incentives for teacher participation have been complex. The organizers recognized that teachers had economic and professional constraints that affected participation. First, many needed to work over the summer to supplement their income. Some educators needed to pursue master's level coursework or continuing education programs to complete requirements for tenure and promotion. Taking time away from either pursuit is costly in terms of financial and opportunity costs and therefore in competition with a voluntary program such as the Institute. The Chamber decided to continue to offer a stipend to address economic concerns of educators. Initially, they partnered with a local university faculty member who arranged to award graduate credit for completion of the program and curriculum development that emanated from the program content. Several years after the program was well-established, the curriculum was submitted to the state Department of Education for certification of continuing education credits, which now fulfill a total five years of credits for the educators.

Foundation Board members secured the financial contributions of their organizations to underwrite the cost of the program. The funding commitment from key contributors to the Institute has been remarkably stable over 20 years. A number of contributors have dropped out due for the most part to the departure of the business from the area and plant closures. New businesses have filled the gap. However, the economic downturn in 2008 struck a major blow to the level of funding contributed by various members. Some contributors cut their support by half and several firms dropped out. A key to fundraising has been the opportunity of business executives and their firms to have a role in hosting and interacting with educators through Institute programming. Throughout the three-week program, teachers meet close to 100 South Jersey business and government leaders.

PROGRAM GOALS & TEACHER DEMOGRAPHICS

Three key goals have driven the Institute's agenda:

1. Familiarizing participants with key economic, business and policy issues that impact business, particularly in Southern New Jersey.
2. Exposing participants to real-world challenges faced by business and providing a better understanding of the skills and characteristics students will need to be successful in the workplace.
3. Involving participants in team projects that will modify and/or develop creative activities for use in the classroom.

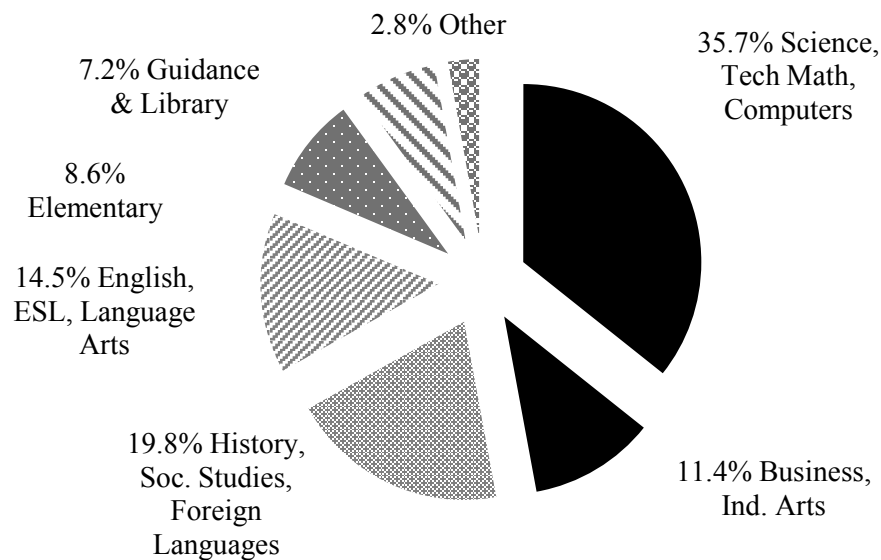
Teachers are selected based on several criteria shown below. These criteria are aimed at assuring that teachers have the expertise, the experience and standing within their organizations in order to make curriculum and teaching process changes that make the optimum use of the Institute's training.

- Demonstrated leadership and involvement in education
- Qualifications and level of interest in course content
- Ability and willingness to assist as a resource person for course follow-up

Neither "grade level" nor "academic discipline" is a factor in teacher selection, yet there is remarkable balance in the distribution of the teacher cohort on these two measures. With regard to choice

of academic disciplines to admit, the SJSI subscribes to the view that economics should be infused into a range of subjects. Aggregating data from 1997 through 2011, the largest cohort of teachers comes from the “STEM” related fields including subjects such as science, math, computers and technology training. Practical subjects including business, retailing, marketing and Industrial Arts, and these two fields combine to provide another 11.4 percent of teachers.

FIGURE 1
COMPOSITION OF TEACHER COHORT BY ACADEMIC DISCIPLINE 1997 - 2011



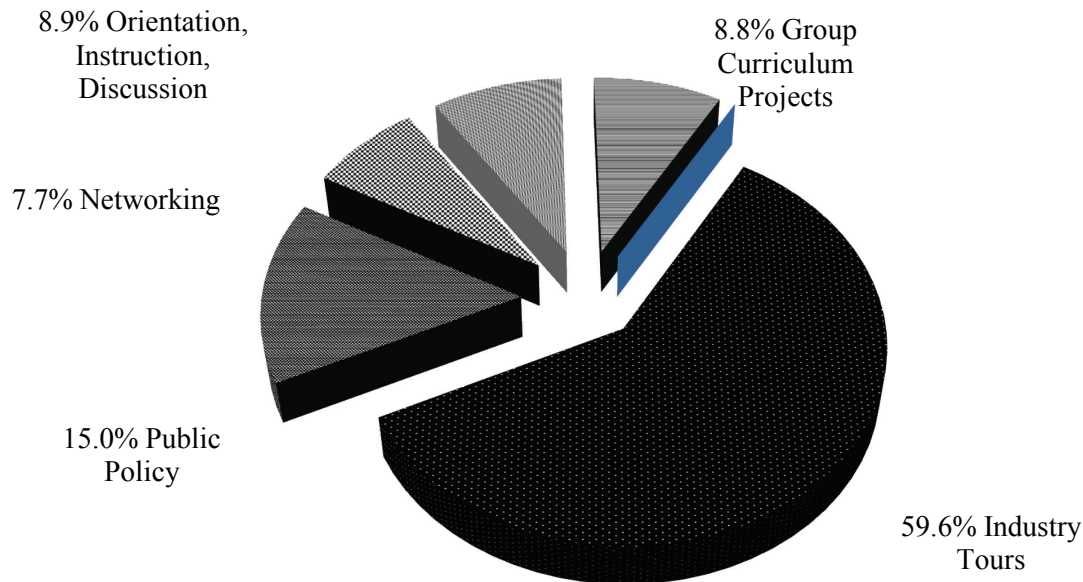
There is good balance among the grade levels represented by the cohort of teachers. Since 1997, forty-nine percent of all teachers come from high school level. The “middle schools” contribute 28.7 percent of participants while elementary grades contribute 22.3 percent of the educators. As Farmer (2005) notes, teaching economics in elementary schools has grown in the last fifty years and in this regard, the SJSIE is at the front of this trend by including elementary teachers with responsibilities for grade 4 through 6.

THE INSTITUTE CURRICULUM

The SJIE curriculum is delivered through a variety of themed tours and expert panel discussions as well as group work aimed at developing curriculum guides for use in classrooms. While traditional university-based economics for teachers is spent in the schools and the college classroom, the SJSI approach places the greater emphasis on direct engagement with industry through field trips and interaction with leaders of regional businesses as well as relevant figures in government and public policy positions.

Figure 2 shows that the emphasis is on active learning during the typical 3 week program. Sixty percent of the time-on-task is spent in site tours at commercial, industrial or healthcare and research enterprises. Another fifteen percent is allocated for discussions and presentation by leaders in the public policy sector. Networking brings teachers and business executives together for 7.7 percent of the seminar at Chamber of Commerce sponsored activities such as ‘Business After Business’ and a closing dinner.

FIGURE 2
COMPOSITION OF THE SJSI THREE WEEK AGENDA



About 17.7 percent of the Institute agenda could be described as a more ‘traditional’ instructional format that one might expect in an academic program. These activities provide orientation, instruction on workforce development, curriculum development and some brief period to formally process events of the previous day. A summary of the three week agenda is found in the appendix.

Program evaluations were completed anonymously by all participants at the end of each 15 day Institute using a detailed instrument that measured teacher responses to all aspects of the Institute. Comparable data is available for the period 1999 through 2010 (See Table 1) since the same evaluation questions were presented to every class during that time frame. The results show uniformly high marks for the quality of the program components from year to year (inputs). Teachers were asked “Compared to other professional education experiences you have had, how would you rate the SJSIE?” Of the 297 respondents in these class years, 35.2 percent rated the Institute “Better than Others” and 63 percent rated it “The Best.” Just 1.8 percent rated it was “Similar” or “Not as Good.”

TABLE 1
EDUCATORS’ RATINGS OF INSTITUTE
1999 – 2010 (N=297 RESPONSES)

	Average Score
Relevance to Region	4.90
Tours	4.82
Presenters	4.71
Content	4.68
Relevance to Teaching	4.60
Educational Projects	4.49

When asked to rate aspects of curriculum delivery on a scale of 1 (low) to 5 (high), educators report consistently high average scores between 4.49 and 4.90. In terms of accomplishing the purposes of the Institute, one can conclude that it met the first two objectives: 1) “Familiarizing participants with key economic, business and policy issues that impact business, particularly in Southern New Jersey” and 2) “Exposing participants to real-world challenges faced by business and providing a better understanding of the skills and characteristics students will need to be successful in the workplace.”

Some concern might be seen in the fact that ‘Relevance to Teaching’ and ‘Educational Projects’ received lower average scores. We think that this reflects the relatively strong educator expectations that this would be a “different” type of experience from traditional “in service” programs. Their primary concerns were to increase their exposure to active-learning methods over didactic methods for developing curriculum. “Relevance to Teaching” understandably varies by subject-matter specialization. Math/Science teachers find ways to translate and integrate most industry experiences into the classroom. Some teachers in certain fields (Art, Foreign Languages) may find it is harder work to develop connections to their classrooms in all experiences. Another insight is that in the 1990s, the program included a component that asked educators to participate in selected learning activities such as role plays. These received negative ratings and were dropped. However, those early negative ratings are reflected in the average scores for “Educational Projects.”

Questions were posed during the participants’ exit survey to determine the future intentions of educators regarding use of the curriculum once they returned to the classroom. Table 2 contains an aggregate measure of exit survey responses for the last twelve years in which teachers have given the program consistently high ratings on questions that point to the likelihood that they will be prepared to act on the curriculum once they return to the classroom.

TABLE 2
EDUCATORS’ REPORTED PLANS FOR CHANGE
AVERAGE RATINGS 1999 – 2010
(N=271 RESPONSES)

	<u>Yes</u>	<u>Somewhat</u>	<u>No</u>
Will you adapt content to be included in your regular teaching curriculum	91.5%	7.7%	0.7%
Did the Educational Presentations/Activities increase your awareness of methods and resources for teaching Institute Issues	84.1%	15.9%	0.0%
Did the Institute change your opinion on educational issues or educational ideas presented	76.4%	19.6%	4.8%

Over ninety percent indicated without reservations that they would adapt content learned during the program for use in the classroom. Over eighty percent of the educators indicated an increase in awareness, raised during the SJSIE, regarding not only economic issues but also with respect to “methods and material” that might be used to enrich the classroom. Fully three-quarters of the educators unequivocally reported a change in opinions and attitudes on educational issues related to business, economics and workplace issues.

Teachers worked together in affinity-based teams that developed curricula for the group to take back to their classroom. Typical output for each team included targeted subject and grade levels, learning objectives, complete lesson plans, handouts/assignment or worksheets to be given to the students, and

rubrics for assessing student performance. These ‘packages’ were designed not only as guides for the instructors involved in the SJSIE, but also to be shared with colleagues who wished to adopt their innovative curricula. Curricula ranged from fairly conventional projects that aimed to replicate an experience in the workplace, to fanciful and creative ventures in which students were asked to imagine historical or future conditions based on economic or employment based assumptions. Some examples of this output include the following from a recent class year:

- Early education curricula included student research on famous scientists, inventors and technology designers.
- Science and mathematics curricula often include assignments that call for students to evaluate actual job descriptions from area industries to identify the respective math or science skills required along with education levels and other relevant qualifications.
- Social studies students were required to analyze the economy of the European settlers and contrast that with the economics of the early American colonies. Subsequently, they were asked to address how Alexander Hamilton and Thomas Jefferson differed in their views on the constitutionality of the First Bank of the United States.
- History students were asked to design a job description and conduct a job interview and develop resumes for candidates for President George Washington’s new administration (Secretaries of State, War and the Treasury.) Students play the role of Washington as well as the candidates in full colonial garb and demeanor.
- A common project for a ‘Business Studies’ curriculum included making personal budgets, developing a savings/spending plan for college attendance and choosing between attending a state versus a private college. They used exercises such as “Which car can I afford to buy?” to analyze fixed and variable costs and credit.
- A number of curricula introduced personality tests such as the Myers-Briggs
- Several curricula include the use of games including “The Economics Game” introduced by The Federal Reserve Bank speaker or “The Millionaire Game.” One teacher group wrote economics questions on a large beach ball with a ‘Sharpie pen’ and showed how they would have elementary school children toss the ball to one another with the ‘catcher’ required to answer the question on which their right thumb rested.
- Other Projects introduced competitions which replicated an internal ‘economy’ in which students earned dollars or points or other ‘currency’ such as jelly beans to purchase classroom supplies, privileges and exemptions.

As will be shown in the following section, analysis of responses to the post-Institute survey found that the majority of educators found that these curricula stood the test of time and could be used for many years.

POST-INSTITUTE DATA ANALYSIS: OUTCOMES AND IMPACT FOR EDUCATORS

As noted in our Introduction, satisfaction surveys and output at the end of professional training programs are just the beginning of an analysis of effectiveness. As a follow-up to the 20 years of post-Institute assessment, the authors undertook in fall 2011 the first longitudinal study of the outcomes of the South Jersey Institute for Educators.

METHODOLOGY

A survey questionnaire was utilized to collect descriptive data concerning the SJSI teacher training and the subsequent methods educators used to transmit economic and workforce readiness education in the participants’ home schools. The questionnaire was posted on SurveyMonkey from December 3 through December 23. The structure of the survey instrument included six sections: 1) teacher

demographics, 2) types of curricular and classroom instructional methods used, 3) length of utilization and adaptation of curriculum, 4) perceptions of program strengths and weaknesses, 5) perceptions of student outcomes, and 6) dissemination efforts with teaching peers. Demographics were comprised of open-ended questions on teacher background, geography of the school, teaching discipline and experience. Respondents were asked to describe types of teacher training and classroom instructional methods used and to rate their perceptions of the effectiveness of curriculum that resulted from SJSI experiences.

There are limitations in the length of time for which we were able to extend the analysis of the entire cohort of approximately five hundred educators trained through the SJSIE. Sadly, addresses and mailing lists were not well-maintained and updated during 1992 – 1996, the years prior to the involvement of the Chamber of Commerce. Therefore we were not able to extend the study to include participants from the earliest years. Our ability to track some participants also was limited as a result of retirements, departures from the teaching profession, and moves from the district and the region. The level of attrition of names from the SJSIE's database may reflect the mobility of our modern culture. Current mailing addresses and contact information was available for 297 individuals. Each of the participating teachers from the years 1997 through 2003 received a letter notifying them of the purpose of the online survey questionnaire and how to access it. Email was sent to educators from the 2004 through 2011 class years. A second reminder was mailed to the 1997 through 2003 cohorts and email reminders for the 2004 – 2011 cohorts were repeated one week and two weeks after the initial message was sent. The teachers' names were not required on the questionnaire, therefore, assuring them of anonymity and confidentiality. There were 103 teachers who completed the questionnaire; of these, 98 produced complete and useable data. The response rate was 33%. These authors completed computer tabulation of the survey responses. Data analysis was performed using Excel spreadsheets.

TABLE 3
YEARS OF TEACHING EXPERIENCE PRIOR TO
ATTENDING THE SJSIE

	Percent Respondents
1-5 years	29%
6 - 9 years	20%
10-14 years	19%
15 - 19 year	15%
20 or more	16%
Total	100%

TABLE 4
SJSIE “CLASS YEAR” ATTENDED

Class Cohort	Percent Respondents
2007-2011	42%
2002-2006	35%
1997-2001	15%
1992-1996	7%
Total	100%

The respondent pool provides perspectives of both freshly-minted younger teachers and seasoned professionals who have had substantial career experience prior to enrolling in the SJSIE (Table 3). Not surprisingly, the survey attracted a larger proportion of ‘recent’ graduates of the Institute as measured by Class Year on Table 4. This, we believe, is a reflection of the ability to track educators from their original school appointment to their current professional or private address. Yet, we are confident that we have a significant body of insight about the long-term value of the training program based on the fact that fifty-eight percent of the respondents have five or more years of experience in deploying their knowledge (see Table 4).

CURRICULUM RESULTS

Of the ninety-eight respondents to the longitudinal survey, 45 percent reported continuing for 5 or more years to use the curriculum they developed after its initial implementation. When asked if they made any significant adjustments or changes to that curriculum, sixty-five reported “No.” We take this to suggest the durability and robustness of the curriculum that teachers developed. Thirty-five percent of respondents indicated that they had made significant changes. Changes in teaching assignments accounted for some responses by those who indicated that they made changes. A few educators mentioned the need to adapt what they do to conform to The New Jersey Core Curriculum Content Standards (NJCCCS), which included a 2009 update that addresses “21st Century Life and Careers.” Aspects of the program that focused on technology in the 1990s necessarily had to be updated. As one educator noted, “Implementation of technology has changed since I went to the Institute. In the early 1990’s, students looked for jobs in the newspaper, now they use monsterjobs.com, etc.” Length of service is one factor in the need for change. Another educator noted “As with anything in teaching, changes have to continuously be made to meet the times and the various student needs.”

TABLE 5
NUMBER OF YEARS EDUCATORS CONTINUED TO TEACH THE
CURRICULUM DEVELOPED AT THE INSTITUTE

(N=98)	
1-2 Years	38%
3-4 Years	17%
5-9 Years	26%
10 - 14 Years	13%
15+ Years	6%
Total	100%

While some participants have changed or abandoned the original curriculum, one participant noted that “The knowledge that I gained from the SJSIE has become a more informal foundation upon which I build work place readiness skills.” Another respondent pointed out “I have used much of the information I learned from the program during day to day assignments - telling students about different companies and opportunities and skills companies are looking for in employees.” Perhaps this holistic perspective is one of the more generalizable outcomes that inform educators over time.

TABLE 6
WHICH KINDS OF LEARNING ACTIVITIES DID YOU INCLUDE
IN THE CURRICULUM YOU DEVELOPED?
(CHECK ALL THAT APPLY.) N=98

Activity	Percent Used
Group Work	64%
Oral Presentations (by Students)	51%
Outside Guest Speaker	36%
Role Playing	34%
Lectures (by Teachers)	33%
Field Trip	28%
Games	28%
Supplemental Reading	24%
Journal Entries	24%
Essay Writing	17%
Other	17%

TABLE 7
WHICH KINDS OF STUDENT ACTIVITIES DID YOU EMPLOY
IN THE CURRICULUM YOU DEVELOPED?
(CHECK ALL THAT APPLY.) N = 98

Student Activity	Percent Used
Career Exploration Assignment	73%
Job Research	48%
Resume Writing	36%
Mock Interview	28%
Budget Worksheet	23%
Out of Class Discussion	22%
Business Plan	16%
Invention	16%
Career Aptitude Test	13%
Other (please specify)	12%

Hoyt (2003) discusses the need for teachers who aim to provide a deeper understanding of economics and workplace issues to make a more careful selection of content and examples. This means that teachers should move away from “chalk and talk” teaching techniques and toward more engaging methods. Research by Brewer and Jozefowicz (2006) showed that personalizing economics issues through personal journals and reflection papers has a positive effect on student learning.

Educators were prolific in citing examples of novel approaches to curriculum and varieties of learning that students were able to experience as a result of their teachers’ professional insights from the SJSL. Some of the more than 80 examples are offered below:

- “A student interested in science was able to spend time at the Coriell Institute. All others learn about economics in the world.”

- “For the entire school year, I kept on my board a quote from Lockheed Martin: Do what's right, Do your best, Respect others. It all comes down to that.”
- “I am able to explain to my students how they should work collaboratively and why it is so important, based on how much the need for teamwork in the work force.”
- “I have set up several assignments that involve sample scenarios related to workplace issues for example: workplace ethics and communication skills. I also set my students up to go mock job interviews with a contact that I met through the summer institute.”
- “I teach in a very poor urban district and my students tended to have a very narrow view of the world outside. The changes I made because of SJSI allowed an expanded picture; helping them make community and, sometimes, global connections to the world. I believe they're learning about new possibilities”
- “On the first day of school, both as a 4th grade teacher until today as an 8th grade homeroom teacher I have students apply to be a student in my class. As a 4th grade teacher, the students earned a hard hat and designed what our classroom money would look like. Students were paid weekly on Fridays on whether or not they came to school and if they were on time. I had set up a classroom store that I stocked with pencils, erasers, books, and candy. Very successful.”

The true test of any curriculum is whether the students appear to have achieved learning gains in important areas relevant to their level of instruction. Over half of the educators responding to a question on student learning outcomes report that students are making achievement gains in areas that include higher-order intellectual skills. While some instructors have set learning outcomes that emphasize the attainment of practical skills such as interviewing, time management or budgeting, these are less prominent than those that represent universal goals of a general education (Problem-solving, Communication, Critical Thinking and heightened Personal Aspirations.)

TABLE 8
WHAT ARE SOME EXAMPLES OF KNOWLEDGE STUDENTS RECEIVED
AS A RESULT OF THE CURRICULUM YOU DEVELOPED?
(CHECK ALL THAT APPLY) N=98

	Percent Responding
Problem Solving	58%
Communication	58%
Critical Thinking	57%
Personal Aspirations	55%
Interview Skills	36%
Time Management	31%
Personal Management	28%
Budgeting	20%

Educators were presented with a Likert-scale question that asked them to assess student responses to the new curriculum on a 4 point scale of “very positive” to “very negative.” “As a whole, how did your students respond to the curriculum you developed at SJSIE?” Forty-nine percent of the educators replied “Very Positive” while fifty-one percent replied that student responses were “somewhat positive.” None of the educators reported negative student responses.

A final issue to be assessed is the extent to which SJSIE Educators attempted to transmit what they had learned to their colleagues once they returned to home campuses. When asked “Did you share your knowledge from SJSI with your colleagues?” only six respondents answered “No” or left the answer

blank. Respondents who answered “Yes” were asked to explain how they shared information. “Interpersonal interaction” was the dominant means of communicating with colleagues. Nearly all, ninety-two percent of educators, indicated that they shared information from the SJSI through casual conversations with colleagues. Forty-six percent of educators reported on the SJSI experience during a faculty meeting or department meeting. Twenty-two percent of educators made presentations during teacher “In-Service” days and twenty-one percent reported making a formal presentation in some other setting. Several educators expanded on the nature of their communications and emphasized that they encouraged colleagues to apply to the SJSI program in future summers. Other teachers mentioned developing articles for school newspapers, interviews through TV and other Media or the NJ Education Association Annual Convention, or with school district supervisors and county coordinators.

PROGRAM MANAGEMENT ISSUES

There are more factors leading to the success of teacher training besides the curriculum. Developing an agenda that reflects the landscape of the regional economy is the critical starting point. That agenda defines which corporate and institutional partners have a seat at the educational table. Like many regions, the economy of Southern New Jersey today is diversified, dotted by a few larger firms (Campbell Soup Company, Checkpoint Systems, Comcast, J&J Snack Foods, and Lockheed Martin, to name a few) but it is dominated largely by a multitude of small enterprise that service the larger firms, the broader Philadelphia metropolitan region and local consumers.

An important factor in the success is the focus on the *regional* economy and the *regional* educational environment. The umbrella of a region-wide Chamber of Commerce provides a lever for the engagement of larger, particularly service firms that meet the needs of consumers and commercial enterprise across county and school district lines. Public utilities have substantial geographic service areas and look for impact. Banking institutions both nurture and benefit from a strong regional business network. Firms from both the financial and utilities sectors have played important roles in underwriting costs and providing presenters for Institute events.

The focus on *region* rather than local businesses and schools does more than enlarge the pool of venture funding and educators. Corporations and small businesses have global markets and recruit employees from a wide range of sources and a key success factor comes from knowing that students from a wide range of school districts are impacted by a succession of educators who matriculate in the program. An important aspect of the program and its curriculum is that it recognizes the interdependence of industries and infrastructure across political and institutional jurisdictions.

A recent “Southern New Jersey Small Business Survey” (Economics Week, 2011) conducted by the Janney Montgomery Scott LLC (MER) confirms that while many regional businesses are experiencing stable or slow growing revenues, the majority (67%) of surveyed small business owners in South Jersey are pessimistic; most who indicated some level of pessimism (97%) saying it will take the economy at least 12 months to stabilize. This partially explains the decline in funding commitment to the SJSIE and limits the ability to reach larger numbers of educators in the future. The Philadelphia Business Journal observed “Corporate Giving: Not What It Used to Be” (2011), tracing the declining trend in *corporate* giving to as early as 2005. They note the shift from small contributions (the SJSIE seeks \$2500 awards to fund ‘scholarships’ for the teachers) to larger targeted grants and more in-kind contributions.

Another aspect of program success may be the portability of the curriculum. A less regional and less comprehensive program may hamper the transferability of learning from setting to setting. The program sponsors have not tracked the movements of educators from subject to subject, from one school or school district to another or one grade level to another. However, we know by comparing rosters to mailing lists and the now “online” staff directors in area school districts, that there is considerable movement of educators as well as attrition from the profession. A few anecdotal findings of the lives of educators “after teaching” show that leadership continues in other walks of life beyond the classroom. One teacher whose parochial school was closed a number of years ago now serves as a local freeholder in his community. Another teacher is president of the district-wide union. Another educator is now an instructor at the local

Community College level. In many ways, educators may be enhanced by the SJSI experience. This provides an experience similar to the popular “Leadership” series which brings together business, governmental and philanthropic leaders to learn about being a “trustee” of the community (also a Chamber of Commerce program.)

IMPLICATIONS

This study should inform and assist others in education, philanthropy, and the business community and policy-making positions who seek a prototype program for enhancing K-12 teacher preparation. The study demonstrates that programs designed around conveying a better understanding of the regional economy have far reaching effects and contribute to the ability of those instructors to share their knowledge with their students and their peers. The study shows that educators from different teaching levels, academic fields, and school districts can gain content knowledge and feel confident and prepared to teach a wide variety of concepts concerning regional economics and job readiness to their students.

Professional development gives educators exposure to leadership development and may have important effects for the educational system beyond the classroom. Programs such as this may serve a parallel purpose of better informing the business leader. Networking processes may provide more insights for the business community leaders into the culture and curriculum of regional schools and measures taken by local districts to address workplace and economics education for students across grade levels. Some educators have expressed the concern that there is a need to provide business and industry with more insight into the measures that schools are undertaking to address Career and Technical Education.

The study also has implications for the educators whose states are adopting model curriculum standards for economics education. Some educators see a larger role for business organizations to play in influencing the curriculum standards that are adopted by states and school districts. One educator noted in the 2011 survey “There is so much going on with Career & Technical Education at the New Jersey Department of Education (NJDOE), that I would be interested to know how the Chamber has engaged with the NJDOE to assist in the development of new curriculum for Approved Programs of Study (high school), or if there are any organized systems for putting students and programs in touch with mentors and partnerships.”

A final issue that the study revealed was an interest among participants in reinforcing what took place during the training session and opportunities to renew that learning in response to inevitable changes in technology and economics life of a region. To date, the SJSIE has relied on networks among the educators to serve as the glue that assists newly graduated teachers to make a successful transition to the classroom and use their newfound knowledge. As time passes, teachers express a common theme that emphasizes the value in revisiting the Institute. One educator commented “Educators should have the opportunity to participate in the Institute a second time.” Others noted that continuing education programs would be valuable to participants. “There should be a follow-up for institute members such as a reunion program.” And another educator noted “I’d like to see a Part 2, a renewal class for those of us that did it so long ago. Technology has changed and so has the job field.”

CONCLUSIONS AND RECOMMENDATIONS

The South Jersey Summer Institute for Educators has offered a glimpse into the outcomes of one intensive professional development program that allows grade 4-12 teachers an opportunity to better understand the larger environment for which they are preparing their students. The model shows a significant level of achievement based on Kirkpatrick’s “Four Levels of Program Evaluation” model. We’ve shown that there is very strong initial “Reaction” based on exit surveys used at the conclusion of the SJSIE. We identified evidence of “Learning” from the extent to which there is a gain in knowledge and skills as measured by creative curriculum developed during the Institute. The longitudinal study built upon our 2011 survey shows long-term changes in “Behavior” measured both in terms of educators report of increased efficacy and, importantly, persistence over many years in use of curriculum and concepts

learned during from the SJSI. Finally, although it is an indirect measure, teacher reports from the survey tell us that “Results” have been achieved in the form of student outcomes resulting from their exposure to the curriculum and personal experience of educators back in the classroom.

Future recommendations might include for the champions of the SJSIE to undertake several new measures as future budgets and human resources permit. One recommendation that would address the desire of many educators to stay in touch and gain reinforcement through a low cost, high yield annual “reunion” hosted by community leaders. One could engage the regional Society for Human Resource Management to host a panel on the local job market and future career demands for emerging graduates of high schools. This type of forum would provide a way for other regional Chambers of Commerce or civic leadership groups to play a central role in helping business and education to better understand one another. A key concern should be the shrinking of ongoing funding and fiscal commitments by business for this and any effort aimed at launching an Institute in other regions of the country. Programs such as this one are not inexpensive and need to be supported with proper professional staffing commitments, logistical support and coordination.

A final issue is one for higher education institutions to consider. What might be the potential role of business schools and economics programs in such endeavors? Economics education – subject matter specialization – may find itself an orphan in some higher educational settings. Unless substantial numbers of “paying customers” (graduate program enrollees) can be attracted, there is often too little incentive for universities to offer courses that would provide the framework for conducting and generating partial funding for such a program. Engagement by business schools in outreach programs such as this one may be a natural avenue to learn more about the career expectations of their prospective students and thereby aid in recruitment of better prepared students for specialization in future business careers.

REFERENCES

- Abbott, I., Huddleston, P.; Foley, M. (1993). “Working With Industry in Initial Teacher Education”. *Education & Training*, 35, 5. 30.
- Anonymous. (2009) “Investment Brokerage Companies; Survey Confirms Economic Pessimism Prevalent Among South Jersey Small Businesses.” *Economics Week*. (Aug 19, 2011): 1104. Retrieved from <http://search.proquest.com/docview/882290241?accountid=13605>
- Brewer, S. M; Jozefowicz, J. J. (2006). “Making Economic Principles Personal: Student Journals and Reflection Papers”. *Journal of Economic Education*; Spring 2006; 37, 2.
- Casner-Lotto, J, and Wright, M. (2009). “The Ill-Prepared U.S. Workforce: Exploring the Challenges of Employer-Provided Workforce Readiness Training.” *The Conference Board*. BED-09 Workforce.
- Farmer, D. J. (2005). Begins in Kindergarten: The Social Construction of "Normal" Citizens and Their Dreams. *Administrative Theory and Praxis*. 27, 4 (December 2005). p. 707-718.
- Hoyt, G. (2003). “How To Make Economics The Fulfilling Social Science,” *Southern Economic Journal*, vol. 70, no. 1, pp. 216–18.
- Jenkins, S. J., Nelson, J. (1999). “Program Evaluation and Delivery in Economic Education.” *Allied Academies International Conference. Academy for Economics and Economic Education Proceedings*. 36-43.
- Key, P (2011). “Corporate giving: Not what it used to be.” *Philadelphia Business Journal*. November 18, 2011 retrieved online December 5, 2011. http://www.bizjournals.com/philadelphia/print-edition/2011/11/18/Corporate_giving.html

Kirkpatrick, D. L. (1994). *Evaluating Training Programs*. San Francisco: Berrett-Koehler Publishers, Inc.

Meszaros, B. (1997). "Economic standards: A guide for curriculum planners." *Social Education*, 61, 324-327.

Mizell, H. (2010). "The Misuse of Professional Development." *Education Week*. Published Online. September 20, 2010 retrieved November 21, 2010
http://www.edweek.org/ew/articles/2010/09/22/04mizell_ep.h30.html

Niederjohn, M S. and Schug, M. C. (2008). "Can Students Learn Economics in U.S. History?" *Journal of Private Enterprise*. 23. 2 (Spring 2008): 167-176.

Walstad, W. (2001). "Economics Education in U.S. High Schools." *The Journal of Economic Perspectives*. 15. 3 (Summer 2001): 195-210.

Watts, M., (2006). "What Works: A Review of Research on Outcomes and Effective Program Delivery in Precollege Economic Education." New York, NY. National Council on Economic Education.

ADDENDUM 1

SOUTH JERSEY SUMMER INSTITUTE AGENDA Economics, Industry & Education: Exploring the Issues

Week 1 / Day 1

Institute Information: Executive VP/COO, Chamber of Commerce Southern New Jersey
Institute "Survival Guide" Social Studies Teacher, Regional H.S.
Welcome: President/CEO, Chamber of Commerce Southern New Jersey
Opening Keynote: Financial & Public Policy Consultant
Tour: Comcast Corporation, Philadelphia, Pa.

Week 1 / Day 2

Tour/Discussions: Federal Reserve Bank of Philadelphia (All Day)

Week 1 / Day 3

New Jersey Assemblywoman, 6th Legislative District
An Overview of the Southern New Jersey Economy, Associate Dean and Director, Center for Regional & Business Research, Atlantic Cape Community College
Tour: Logan Generating Plant, LP, Swedesboro, NJ

Week 1 / Day 4

Panel Discussion: "The Changing Work Place" The changing corporate work environment; employment trends; skills and characteristics students need in order to be successful in the work force.

Partner, Labor & Employment Law, Morgan, Lewis & Bockius, LLP
Client Services Recruiter, PNC Bank
Vice President & Regional Leader, Client Services, Career Concepts, Inc.
Director of HR Operations, Bancroft Neurohealth
Director, Organizational & Talent Development, South Jersey Industries

Week 2, Day 5

Tour: PSEG Energy & Environmental Resource
Panel Discussion: "The Changing Energy Industry" The evolving energy industry in the face of a changing environmental landscape; the issue of competition and related industry changes;

affiliated companies which have emerged in this new energy environment; and, employment trends, skills, and characteristics needed in the utility industry.

General Manager-Public Affairs, PSEG Nuclear, LLC

President, South Jersey Industries

Vice President, Customer Operations, PSE&G

Vice President, Atlantic City Electric

Week 2 / Day 6 Vital Manufacturing Industries

Tour: PolyOne Corporation (Design and manufacturing of specialized polymer materials, services and solutions.)

Tour of Mannington Mills, Inc. (U.S. manufacturer of residential and commercial flooring)

Week 2 / Day 7 The Health and Medical Sector

Tour: Coriell Institute for Medical Research (Leading in human genetics, stem cells and biobanking.)

Tour: Virtua Health (Comprehensive healthcare system headquartered in Marlton, NJ with four hospitals in the South New Jersey area)

Week 2 / Day 8

Tour: K-Tron International (Manufacturer of material handling and feeding systems for process industries)

Panel Discussion: "Corporate Responsibility and Ethics" The commitment of the business community to conduct itself under high ethical standards and the responsibility of business to the communities it serves, including the education community.

President/CEO, Chamber of Commerce Southern New Jersey

Vice President, CSR/Sustainability, Campbell Soup Company

Director, External Affairs, Verizon

Vice President, Relationship Manager, Business Banking, Wells Fargo & Company

AVP Financial Advisor, Legacy Investment Advisors, LLC

Networking Event: CCSNJ "Business After Business"

Week 2 / Day 9 Business Revitalizing Atlantic City

Panel Discussion: "Atlantic City: Past, Present and Future" This discussion includes a brief history of Atlantic City, the city today, the casino industry's contribution to the regional economy, and employment opportunities available.

President & CEO, Chamber of Commerce Southern New Jersey

General Manager, Atlantic City Outlets, The Walk

Chairman, Casino Reinvestment Development Authority, Business Manager, Southern

New Jersey Local Union 322 & President, Southern New Jersey Building Trades Council

Vice President of Sales, Atlantic City Convention Center & Visitors Authority

Senior Director of Convention Development, Atlantic City Convention Center & Visitors Authority

Vice President Conventions, Caesar's Entertainment-Atlantic City Region

Week 3 / Day 10

Tour: Lockheed Martin Maritime Systems & Sensors

Week 3 / Day 11

Tour: Subaru of America, Inc.

Tour: Hunters Farm & Market, (Cinnaminson farm established in 1860)

Week 3 / Day 12

Tour: South Jersey Technology Park at Rowan University

Tour: Paulsboro Refinery

Week 3 / Day 13

Presentation: Vice President of Premium Seating, Wachovia Center Complex (Sports & Entertainment Arena, Philadelphia, Pennsylvania)

5:30 – 8:30 p.m. Summer Institute Closing Dinner Honoring the Class of 2011 Keynote Speaker:
Wells Fargo & Company
Week 3 / Day 14
Teacher Presentations of Final Project, evaluations, concluding activities

ADDENDUM 2

SELECTED BEST PRACTICES - LESSONS LEARNED IN CONDUCTING THE SJSIE

Many years of continuity in leadership by the Chamber of Commerce has enabled the program's stewards to identify a variety of "best practices" and "lessons learned" that may assist others in conducting outreach programs for K-12 educators.

An important early part of the Institute is an introductory lecture on "Business Etiquette."

- Behaviors, styles of discourse, or certain styles of dress that are acceptable in the school may be unacceptable in business. Schools tend to be more casual and teachers should be coached on "do's and don'ts" that businesses expect.
- Teachers need to know that while they may speak candidly, they must also avoid *personal* agendas such as complaints about their phone bill or the hosts company's customer service.

Developing appropriate time frames for activities during the program is essential.

- Teacher time-frames are adapted to school classrooms where an hour is the typical attention span. Lengthy tours can be problematic and it is important to both forecast in advance and attempt to mitigate the physical effects of some tour facilities. (Participants are warned that they should participate only if they are up to the demands of walking, climbing stairs, tolerating heat and other production conditions.)
- It is critical to provide formal time for interaction among teachers – not just for development of curriculum, but for networking. Forming lasting relationships that provide support systems encourage teachers to connect with one another to carry out their learning enhancements.
- Informal time together is valuable. This is why the SJSIE insists group lunches and providing bus transportation rather than allowing individuals to drive to the business tour sites. This time together provides opportunities for teachers to process their common experiences.

Size of the class is important. While early "classes" were as large as 25 to 30, more recent classes are much smaller with the 2011 class totaling 15 educators.

- The mix of grade levels and subject areas means attention needs to be paid to keeping everyone engaged. It's easier to note when an educator needs more interaction in order to sustain their focus and involvement.
- Larger classes pose problems on certain tours where space is limited and only a few could enter an area at one time. Similarly, businesses may not have the 'hospitality' space for to host lunches and other group discussion meetings that accompany some tours.
- In the "Post 9-11" world, business and industry must impose a variety of constraints on access for educator groups. Security clearances require advanced lead time in firms such as Lockheed-Martin (a defense contractor.) Health or safety issues may impose clothing and behavioral restrictions.

"Show and Tell" lectures by business partners are not enough to engage educators. Interactive sessions are essential for educators to get the most out of the learning experience.

- Bring in young executives who are able to engage the teachers based on remembered experience. The most absorbing words can be "My favorite teacher was Ms. Smith who taught me to That's why I work in this business today. "

- Teachers need to find tangible business activities to connect with their classrooms. Human Resource Managers can share job interview tips. Production managers can show how they estimate the cost of manufacturing a product.
- Allow for lots of “Q & A” time in a session involving business professionals. Teachers are very inquisitive and want to conduct their own inquiries about the businesses and their manager’s activities.
- Recognize the power of gratuitous giveaways. A pen or note pad with the company logo or more practical company materials may be used in the classroom and serve as a jumping off point for a discussion with students.

The *Affective* component of the Institute is one of the most important elements in teacher learning.

- Teachers need to know that they are held in high esteem by business. Programs need to provide opportunities for business contributors to explain their views of the educational system and how important it is to their organizations.
- One thing the SJSIE organizers know is true is that exposing business executives and teachers to one another can change mind sets. Teachers come to an Institute with a great deal of misleading information and one-sided assumptions about business practices, especially in sensitive areas such as compensation of workers, pollution, and corporate ethics. Meeting the people who make decisions helps them to appreciate the complexity of the modern business choices and actions.