

Karen West, for submission to Beyond Silicon Valley: Growing Entrepreneurship in Transitioning Economies, Mid Term Entrepreneur Interview Assignment, Oct. 30, 2014

I interviewed 7 entrepreneurs, one from my current location in Boston,MA,USA, and I was an employee at this high tech start up company at one time, so it is the business that is the closest match of my entrepreneur interviews based on my past work experience in high tech companies of all kinds. Two are from the west coast, my cousin's husband and the other my brother. My cousins' husband's high tech businesses run in the Boston area, a temperature control devices for the semiconductor industry company, and another a glaucoma surgery company. My brother formed a law firm on the west coast in the biomedical device space. My entrepreneur interviews are very diverse in nature, and some are a bit different to the type of high tech environment at which I've worked in the past. Two entrepreneur interviews came from friends I had in my home town of Albany,NY,USA, one in my grade in high school, a speech pathologist, and the other one grade ahead of us who has her own insurance and risk management business. Another entrepreneur interview I received was from my cousin in the Providence,RI area, and given I live south of Boston, I sit in the middle, equidistant from both Boston,MA and Providence,RI, so both very close to where I live today. Her business is higher educational institution database software. The last entrepreneur interview I received was from the town in which I live, North Easton,MA,USA, and that interview was with a friend of a friend whom I've never met before but lives in my town, and started her own pearl jewelry business here.

After I describe in detail all the response to these 7 entrepreneur interviews, at the end of those, I describe and interpret my entrepreneur interview answers in the context of their regional entrepreneurial system, their challenges in finding support, the gaps in their systems of support (if any), and their greatest strengths with regard to government support, philanthropy, and intermediary institutions in their region (if any), as seen through my eyes, summarized at the end. The “ENTREPRENEUR INTERVIEWS” section goes into all details given during the interview, and the “MY ASSESSMENT” section is my summary of it all at the end. It is 12 pages long, and my assessments begin on page 9.

### ENTREPRENEUR INTERVIEWS:

The first entrepreneur interview I am sharing is within my local to Boston,MA,USA ecosystem, and I worked for his company, Oasis Semiconductor, from 2002-2004, in Waltham,MA. In 1995, John Koger asked his colleague, Brendan Mullally to be his graphics and image processing chip designer at a new start up company. John used to work in Digital Equipment Corporation's graphics chip design group and had decided he wanted to form his own start up company. John's good friend since elementary school in Weston,MA, Will Wrenn, was the initial financier of the start-up, and provided them \$300,000 to get started in 1995. Although you wear “many hats” at a small start up company, John took on the initial role of marketing and sales, while Brendan was the designer. They had both worked together at DEC on graphics multimedia chips in Hudson,MA.

Here was the idea behind their company's mission. Many companies at that time, such as ATI which is now part of AMD, Tseng Labs (1980's), and others in the graphics chip market had decided that their mission was to sell their graphics chips to all companies. At DEC, the philosophy had been that they made their own chips and incorporated them into their own products, but John had observed that there was a new trend happening where the above mentioned graphics chip companies were supplying many different companies who made computers that used graphics chips. John's idea was to make a graphics chip that supplied the office equipment space as a focus.

Initially John made many trips across the Pacific to make sure they were going in a direction that the office equipment companies would be interested in, and companies such as Konica Minolta, Panasonic, Rico, Sharp and Xerox were all quite interested in buying his chip. John had presented to them that his company would be able to make the chip for them at a much cheaper cost and a lower risk than what they were currently paying, and later John also included the software to go with the chip. The software was really rolled up in the price of the chip, since for accounting purposes, it's much easier to track the number of chips sold, and customers could take the software provided with it, and make as many copies of it as they needed to make, so it was not trackable.

The idea of the business was to take a vertical market, a market such as he and Brendan worked in at DEC, a proprietary market where the company made all the chips, software, and boards for computers for themselves, and cut across this vertical organization into a more horizontal market. For example, Dell Computer is more of a horizontal market, in that they contracted chips, boards, and software which allowed them to take advantage of the "economies of scale", and consequently their costs as a company were lower than DEC's. So John's idea was to be able to supply all customers and companies interested in buying a graphics chip in the office equipment market. That was their mission.

In terms of support after the chips were sold to customers, that was minimal, except for just after initial sales and delivery to the customer. They provided the chip and eventually also the software to go with it.

In terms of Oasis Semiconductor's ecosystem of resources, initially it was a friend's belief in his success that invested in their start up, Will Wrenn. There were also a few angel investors as time went on, other people who made personal investments and no venture capital firm funds were needed at the time. The angel investments had "fewer strings attached" in that they are usually people who know you quite well at your company's start up and believe you will succeed with their investment. After this type of angel investment, venture capital may have made sense for their company, but they did not end up seeking it, because what happened was that there were office equipment market companies showing an interest in their chip and gave Oasis a 50% payment in advance for their chip. The reason they did not also seek venture capital investment was because often times, venture capitalists are not interested when a product is already on the market with customers paying for the product. They had no philanthropic donations and no anchor institution contributions.

The challenges that John initially faced with Oasis in the beginning was that they were a company of 3-5 people for several years. In that type of small start up, the challenge is convincing giant corporations like Sharp to have confidence in them, because they were so small. It helped that they were a fab-less company, and instead asked companies such as Samsung, Agere (an old spin off from AT&T), and UMC (United Microelectronic Corporation in Taiwan) fabricate their chips for them. The reason this was helpful in building larger company confidence was because if their start up disintegrated, the large companies, such as Sharp, had a "license to buy directly from Samsung (or the others)" in the event that the start up disappeared. So that gave the large company customers the confidence they needed to buy the graphics chips from Oasis without worry of the company going away.

Other challenges were the tradeoffs you make for the next generation of graphics chips. The sales team hears from the customers a list of software and hardware features the customer wants for their next generation product. The challenge is what is realistically doable within the engineer's schedules to incorporate these new features and the cost to incorporate the new features in the new graphics chip and software product definition. The saying goes that if you take any of the three tradeoffs (feature,

schedule and cost), if you take 2 of them and incorporate them, the 3<sup>rd</sup> tradeoff suffers. Planning this successfully was an on-going challenge.

Oasis Semiconductor's opportunities originally came by making graphics chips without software for the copy machine market of office equipment customers. These customers had other vendors where they bought other chips to do the other functions that the office equipment sometimes do in an all-in-one printer, scanner, copier, fax machine, and initially they only bought the copy machine graphics chip from Oasis Semiconductor. Oasis then saw an opportunity to make a multi-function-peripheral (MFP), which incorporated all the printer, scanner, copier fax machine chip functions onto one chip. This was a big success for them, since it made the cost of buying chips cheaper for their office equipment customers and they only had to buy from Oasis, not 4 different chip vendors for each function. This also made their purchase of circuit boards cheaper, and the manufacturing of the product cheaper as well. For example, the first HP low end ink jet printer cost them \$1000, but within 4 years, the cost went down to \$99 for reasons such as this.

The way that John measured the success of Oasis Semiconductor was that he had a lot of fun making his start up successful which is important in life, but as a bonus, he was able to sell the company in 2005 for 70 million dollars in cash (not stock). They were planning an initial public offering (IPO) as their exit event as a start up whose stock could trade publicly, but just when that was going forward, there was a glitch in sales, and a year later, SigmaTel, a former Texas audio company, bought them with the idea that they would incorporate their audio chip with Oasis's graphics chip. This made the first dozen people who started Oasis instant millionaires. John explained that each time you double the company size, stock options halve. Usually you can estimate that when a company is bought, the first round of employees (3-4 of them) will get 5-10% of that 70 million dollars, the next 5 people get about 5%, the next 10 employees get about 1%, and the next 20 or so get a half-percent of the purchase price with their stock options.

John then explained that they were funded by angel investors, not venture capital. If they had been funded by venture capital firms, the salaries of the employees would have been higher but they would have been given less stock options, but the venture capital firm provides more money for start up equipment. With the angel funding Oasis received, the salaries of their employees were lower, and they had less for their start up equipment, but the employees received more stock options that were worth something when the company was bought.

To end this story about Oasis Semiconductor, it is no longer owned by SigmaTel, the Texas audio company that had bought them in 2005, when their Wall Street Bankers told them they should invest in the graphics chip business of Oasis to add to their audio chip business. What happened was that SigmaTel then lost their Apple iPod business 2 months after the purchase of Oasis, so they could no longer go forward with their plans to create a synergy between their audio chips with Oasis's graphics chips. SigmaTel went into panic mode and put all their effort into their audio chips but the business collapsed and was sold to Conexant who did not keep the collapsed audio chip business, but they did keep Oasis as their graphics chip business, since Oasis had proven they were profitable to them.

John said that the benefits to society from his Oasis Semiconductor business was that the printer cost dropped, helping every day people better afford all-in-one printer/scanner/copier/fax machines. John said for perhaps 130 people that were employed and working at Oasis Semiconductor, each one of their graphics chip and software office equipment customers each employed perhaps 100-1000 people, and their manufacturing clients each employed 5-10,000 people to manufacture their chips. So the employment of people also benefited society.

Pete Adams is the husband of my cousin Debbie Adams on the west coast, and he shared his entrepreneur experiences with me. Peter lives in San Jose, CA in the heart of Silicon Valley. He started Noah Precision 12 years ago. He is the co-founder of a glaucoma surgery company in the Boston area called SOLX, which also started 12 years ago. Below I quote Peter's answer to my entrepreneur questions.

“Noah Precision is an employee owned Company. We have no formal mission statement and do not believe a mission statement serves the interests of our customers, shareholders or employees. Rather we focus every day on providing customers with a superior product with excellent support at reasonable prices. We believe this is the best model. SOLX does have a mission statement, which is to preserve vision for an aging population.

Noah Precision is a manufacturer of temperature control equipment to the semiconductor industry. Our customers include HP, AMD, Samsung, Texas Instruments, Lam Research, Applied Materials and similar such customers. Our smallest customer has annual revenues of > \$10,000,000,000. SOLX is a pre-revenue company seeking FDA approval for a surgical device for treatment of glaucoma.

Our ecosystem for Noah Precision includes a board of directors with more than 100 combined years of experiences in the semiconductor equipment industry. We also have a large fund that is an investor. 80% of our revenue is outside the USA. To reach this international market, we have distributors in more than 10 key countries. Each distributor has a relationship with our key customers that date more than 10 years. Most of the distributors that represent our products were once buyers of our products. Similarly, our board of directors for SOLX included doctors with more than 50 years of experience in the glaucoma treatment industry.

The government played no role in our start-up or has provided no specific resources to accelerate our growth. However, the State government in many states has encouraged energy savings and has made a large pool of funds available to our customers who purchase energy efficient equipment. Since our temperature control equipment uses 80% LESS energy than what we replace, there has been a large subsidy available to our customers when they purchase our equipment. Internationally, governments have also created large pools of funds to reduce energy consumption. These funds have provided for significant growth for us. Boston University hosted a competition for emerging businesses and SOLX was awarded a seat in their incubator. Boston University provided SOLX with facilities and trained staff to accelerate our growth.

Boston University served as an “anchor institution” for SOLX.

Challenges: The biggest challenge for Noah Precision is to fund the product development process that ensures our technology is at the leading edge for the benefit of our customers. This spending consumes over 18% of total revenue and it continues to grow annually. The only way to stay relevant to customers in the semiconductor industry is to have the best technology and this requires investment. Choosing the right technology to invest in is always challenging.

Our measure of performance is return on capital employed. This is the only metric we care about. As small business owners, we want a significant return on our invested capital and ROCE is the best measure of performance for us. At some point, I will retire and finding a successor organization will become the next measure of success for us.”

The other west coast entrepreneur interview came from my brother, Jim Shay. Below are his answers to my entrepreneur interview questions.

“We are a small law firm in San Mateo, CA, focusing on intellectual property matters for small companies, primarily in the medical device industry. The firm was founded on November 1, 2006.

A large portion of our work involves interaction with the United States Patent and Trademark Office. Other than that, government has played no role in the founding or growth of the firm. Philanthropy and philanthropic institutions had no role in the founding or development our firm. No anchor institution had a role in the founding or development our firm. No intermediary institution had a role in the founding or development our firm. I took out a line of credit on my home to provide the start-up capital for the firm.

In the beginning, our biggest challenge was to hire enough qualified people to meet the initial demand for our services. Since then, the biggest challenge has been learning how to adapt to the rapidly changing business climate in our primary industry, the start-up medical device industry. The primary element enabling growth has been my long-time relationships within our primary client community. The primary measure of our success has been our relative stability over the last eight years even as the overall legal and business landscapes have changed. The partners and employees of the firm are the primary beneficiaries, but our clients in the biomedical device industries have benefited from that stability as well.

My next entrepreneur interview was from my home town of Albany, NY, a friend of mine from high school who became a speech pathologist. Below is the description of Marina Kristel's speech pathology business in Niskayuna, NY, just outside Albany, quoted in her own words.

“The name of my corporation is Northeast Speech-Language Pathology, PC. I am located in Niskayuna New York. I began a private practice under my personal name in 1991, then incorporated under this aforementioned name in 2003. My mission is to reduce the incidence of aspiration pneumonia both in the community and in skilled nursing facilities. Aspiration pneumonia is the leading cause of death in skilled nursing facilities and the fifth leading cause of death in the elderly living in the community. My services include evaluating and providing treatment for people with dysphagia (swallowing disorders) using Fiberoptic Endoscopic Evaluation of Swallowing (FEES).

In 1995, New York State recognized licensed speech-language pathologists to include dysphagia in their scope of practice. It had previously been recognized in the scope through the federal law (Medicare regulations) and American Speech-Language-Hearing Association.

The FEES aspect of the business was initiated in 1999 with the business taking a bank loan and purchasing \$24,000 worth of equipment. The corporation began expanding its territory to provide these exams in both NY & MA in 2011. Massachusetts was included in the expansion due to prime candidates/patients being held up in Trach & Vent facilities, where aspiration pneumonia is most prevalent. At this time, the business grew exponentially.

The government, nor philanthropic contributions, nor any institutions helped to start up the company. This was started solely by the private practitioner.

The challenges included convincing skilled nursing administrators and their medical directors (high ranking MDs) the benefits of this procedure versus their current means to address patients with dysphagia. Change is very challenging. Continuous research, marketing, making presentations within the medical community, while working & balancing a family has been the biggest challenge. Being a woman among a majority of male physicians, respiratory therapists & administrators is an added challenge. The few female physicians, nurse practitioners, and directors of nursing also often have presented themselves as very noncommittal & reserved, who are among the primary decision makers in the skilled nursing facilities.

As the company grew during the past five years, doors opened for the opportunity to incorporate education and provide classes to employees & direct care staff of the nursing home residents. This has been the optimal means for preventing aspiration pneumonia. Training the staff that feed and verbally redirect these residents simply on safe strategies to eat, drink, take medication, and prevent dental disease is the direct route to preventing the initial problem from starting and improving a condition caused by various medical diagnoses.

The success of this company is not based on income. Success is reducing the incidence of aspiration pneumonia in the community and in skilled nursing facilities. The United States is spending \$87 billion per year addressing aspiration pneumonia. Educating and assessing the swallow with this gold standard instrumental exam known as FEES, will enable the in-house Speech-language pathologist to know the physiology of their patients' swallow, the least restrictive diet texture and liquid consistency, what strategies are necessary in order to safely swallow, and what plan of treatment (including swallowing/strengthening exercises) are necessary.

The beneficiaries of this success are the patients, both young and old, as well as the government's money (coming from both Medicare and private insurance companies) which ultimately comes from the people of the United States.”

The next entrepreneur interview came from my cousin, Kathy Brown, in the Providence, RI area. Kathy described her entrepreneur experience to me in the following manner. She is an independent, individual, free-lance software consultant specializing in a specific database application environment, Filemaker Pro. Her consultant work began in 1998 when her staff position at a local university came to an end. She now independently provides consulting and training in a database application environment. Kathy received no government, philanthropic, anchor institution, or intermediary institution donations for her start up consulting business, but Kathy does provide her services for local non-profits as a volunteer herself. Kathy's biggest challenge was staying current with hardware and software versions because she works in this position on part-time-status. The growth of her business was mostly from word of mouth of completing projects for customers. Most of Kathy's clients are higher educational institutions across the country. Kathy measures her success regularly according to the amount of consulting work she has been contracted to do.

My next entrepreneur was once again from my home town of Albany, NY. Her name is Sherry F. Toedt and she was one grade ahead of me in my high school, and we connected recently on FaceBook, and she offered to answer my questions in regard to her entrepreneur experience as a Certified Insurance Counselor and Certified Risk Manager, and is now President of Toedt Insurance Agency.

The mission of Sherry's Toedt Insurance Agency is primarily to assist small to medium sized businesses with their property and casualty insurance needs and risk management, and to help individuals find the most appropriate personal insurance coverage at the most affordable price. Risk management



information, coverage education and risk reduction is also offered to the personal lines customer. Products are all lines of property and casualty insurance including bonds. Services are loss control, assistance with risk identification, risk analysis, risk control and risk financing. The services can be related to safety training/awareness, contractual reviews/risk transfer options, financing including deductible plans and retroactive rating plans as well prospective rating plans as financial tools to most appropriately price the cost of risk for a commercial client.

There was a small government role. Prior to opening, Sherry met with the Small Business Administration for a review of her plans and as a result was able to obtain a business loan that was SBA backed. The loan required that she also had my own entry equity and was used primarily for operating capital while it got off the ground. No philanthropy was given. No anchor institutions contributed to Toedt Insurance Agency. Sherry was not sure if this qualifies for intermediary institution or not. It is not support in the free sense. However, she did join SIAA (Strategic Independent Agents Alliance) that cost money to join but provides so much in return. It mostly provides access to insurance companies and the ability to earn profit sharing with those companies. Without such a membership an agency would have to have millions of dollars in written premium with a company in order to get an appointment or to ever get profit sharing. Another form of support Sherry received was from the bank where she obtained her business loan. They referred customers to her for several years until they sold to another bank that has their own insurance division. Their referrals were a nice extra but not integral to the success of my agency.

The challenges that Sherry faced as an entrepreneur include wearing all the hats-administrative, sales, service and managerial at the start, and sometimes even now, it can be very time consuming. The biggest strategic challenge for Sherry was generating new business, having the time for marketing and keeping up with it as a means to new continuing revenue growth. The initial tradeoff she had in starting my own company was the flexibility to work from her home office and be available for her child during his school years.

One of the best elements that insured Sherry's success was the network of people she had met in her community through volunteerism. So many were very supportive when she opened her business as they had had opportunities to work with her in PTA, sports, athletic boards and came to know her level commitment and integrity so there was a natural trust already built and they were willing to bring me their business.

Other supports that helped Sherry succeed were of course her membership in SIAA (mentioned previously) and her membership in the Independent Insurance Agents & Brokers of NY as well as her membership and fellowship in the National Alliance for Education and Research. The type of support they provide can be technical (advice on websites, website referrals), sales seminars and tools and education. Sherry's 30 years in insurance made her an expert and she is all about education of the client. Many of her referrals come because her customers come to know her as one of the very few agents that completely understand what she does and care about it passionately and how it impacts them as customers. She is their trusted insurance adviser.

Success for Sherry is making a reasonable living by doing what she knows best and making a difference for my customer. Insurance doesn't matter until it matters and each of her customers is taught about their insurance coverage and how to make the best decisions in regards to their insurance. Sherry's favorite saying is - "Insurance is NOT a commodity like a gallon of milk to be purchased at the lowest possible price but rather a complex financial tool that should be purchased based on need and understanding at the best AVAILABLE price".

The beneficiaries of Sherry's success aside from herself and her family are her customers and the insurance companies she represents. The customers receive outstanding products specifically tailored for their needs at very competitive prices. The insurance companies receive pre- underwritten accounts that have been provided risk reduction education which results in profitable business for the company. When the companies are profitable their shareholders benefit as do their customers with competitive premiums.

My last entrepreneur interview came from a friend of a friend in my current home town of North Easton, MA, USA, although I've never met her before. Joan Hartel Cabral is President and CEO of Vantel Pearls here, and Joan started this jewelry business in 1990. Her mission was and still is "to inspire women to run their own business and to enjoy authentic and abundant life." She had no government, philanthropic, intermediate nor anchor institution contributions and started her business by offering her family and friends a 25% return on their investment if they contributed to her start up, and she got started with \$30,000 investments and her own \$1000. Joan's challenges were that in the beginning, she went without her own income for a handful of years, and found she could not afford to do fun things such as go out to dinner unless she scrutinized the cost of what was on the menu. After a handful of years living this way, Joan's Vantel Pearl business became profitable. Another challenge Joan found starting her own pearl jewelry business in 1990 was that many founders of companies and CEO's were men so it was not common for women to start their own business. After a handful of years, Joan found that her Vantel Pearl business was experiencing exponential growth, mostly by word of mouth. Joan hired "pearl jewelry demonstrators" whom would go to people's houses to throw parties, where the person would invite friends to see Joan's pearl jewelry, and the demonstrator would receive part of the profits of the party where they were a demonstrator. Joan said she had no background nor an education in the pearl jewelry business and figured it out as she went what it would take to be successful in this business.

The support that helped Joan succeed was her belief in herself, a conviction that she would do well eventually no matter what hardships she faced in the beginning. Joan said she latched onto anything in her life that helped her believe in herself to be successful.

Joan's measure of success is certainly a financial measure, where over the years she has experienced a consistent profit every year, and that is her business success. Joan's personal life measure of her success is her serenity and work/life balance, since she has observed that many people in the President and CEO position of a company do not have this work/life balance that Joan does.

The beneficiaries of Joan's success are the demonstrators of the Vantel Pearls, and some of her demonstrators have been with her for over 15 years. Joan and her demonstrators believe in "intrinsic personal development", which Joan describes as an "understatement", and they attend womens' leadership conferences and businesses to speak about their success and share their "treasure gems" which are listed on the Vantel Pearl web site (8 of those). A few of those for Joan are: "trusting your intuitions", "your richest rewards come from helping others", and for Joan, she is not shy to say that she believes "a power greater than herself provides her best guidance". Joan and her demonstrators share their "treasure gems" at the women leadership conferences and businesses where they are invited to speak about their pearl jewelry business success, to inspire other women, sharing the panel with other successful women from all different types of backgrounds that are different to theirs.



## MY ASSESSMENT OF THE ENTREPRENEUR INTERVIEWS:

If you read my above entrepreneur interviews, you will see that I interviewed all different types of entrepreneurs, and not just entrepreneurs that share my common high tech background that I know best and love as well, and I hope that you enjoyed the diversity of my presentation of those.

There were multiple entrepreneur ecosystems in my interviews, and I will now describe my interviewer's answers in the context of their regional entrepreneurial ecosystem, their challenges in finding support, any perceived gaps (if any) in support, strengths with government support, philanthropy, intermediary institutions in their regions as seen through my eyes. Some of this was already mentioned above, but summarized here.

Each of the ecosystems for my entrepreneurial interviews had all the support they needed to get started, but some are more well known for start up culture than others, especially in the high tech market.

My first interview assessment is with my former employer, John Koger of Oasis Semiconductor, which was started by angel investors, a friend from elementary school, and no venture capital nor any other government, philanthropic, anchor or intermediary institution as contributor to the start up. Upon exit, as already explained above, the all employees, but most especially the first set of them, benefited from their exit event when they were bought, since with angel investment, more stock options are given to employees, and less salary and money for equipment that you might receive from venture capital, but at the exit event with more stock options, they ended up benefiting at that time. Their challenge as described in more detail above, was to convince larger companies in the office equipment space, that they could produce an image processing chip for a cheaper cost to them, and later as a bonus software to go with it, without worrying that the small start up would be going away on them, since their chip manufacturers backed them with a "license to buy directly from the manufacturer" if they ever did end up going away on their clients, which never did happen, but it provided their large corporation customers the confidence they needed to believe in them, and eventually as described in detail above, the company's exit event sale was a great success to all that started it. It also provided jobs to people outside their company who helped manufacture the chip, the large corporation employees who bought their chips / software, and society benefited by the reduced cost of implementation and design, because all-in-one printer/scanner/copier/fax machines became incredibly cheap for the common every day person to be able to afford.

My next 2 interview assessments come from the west coast, well known for their start up culture, especially for the high tech industry. I interviewed Pete Adams and my brother, Jim Shay, in the Silicon Valley area, although neither used any government support, philanthropy or intermediary institutions to get started. Pete's temperature control equipment for the semiconductor industry, and the glaucoma surgery equipment were funded by a group of investors, and my brother's intellectual property law firm for the biomedical device industry was funded by a line of credit on a house he owned. Pete's companies were located in the Boston area, which is also a vibrant economy for the high tech start up market. The glaucoma surgery company did benefit from an anchor institution, Boston University, from a contest held there. Neither Pete nor Jim on the west coast had to deal with gaps in support as some economies have had to deal with. Pete's greatest challenge with the semiconductor temperature control company, Noah Precision, was to fund the product development process that ensures our technology is at the leading edge for the benefit of his customers. Pete's biggest challenge was choosing the technologies to invest in to keep a competitive edge for his customers of his 2 industries, both of which have been very profitable businesses for him. My brother Jim's biggest challenge on the west coast was was to hire enough qualified people to meet the initial demand for

their services. Since then, the biggest challenge has been learning how to adapt to the rapidly changing business climate in their primary industry, the start-up medical device industry, but it has ended up being very successful for the firm and their clients, even in a rapidly changing environment.

The 2 entrepreneurs I interviewed in my home town area of Albany, NY offer a diversity to my entrepreneur interviews. The first from Albany is Marina's Northeast Speech-Language Pathology business was started without any government, philanthropic, intermediary or anchor institutions, but through a bank loan. Although the Albany area is less well known for its start up culture, there were no gaps or obstacles in Marina's way for getting her business started in speech pathology. Marina's challenges included a change of mission of the business after a number of years of success in helping people with speech impediments to speak better, and instead focus on the medical side of this business, which is the aspiration pneumonia in skilled nursing facilities and the dysphagia (swallowing disorders), which included becoming more educated in this new area of focus in speech pathology. As already described in detail above, other challenges included convincing skilled nursing administrators and their medical directors (high ranking MDs) the benefits of this procedure versus their current means to address patients with dysphagia.

Marina said that change is very challenging. Continuous research, marketing, making presentations within the medical community, while working & balancing a family has been the biggest challenge. Being a woman among a majority of male physicians, respiratory therapists & administrators is an added challenge for Marina. The few female physicians, nurse practitioners, and directors of nursing also often have presented themselves as very noncommittal & reserved, who are among the primary decision makers in the skilled nursing facilities. As the company grew during the past five years, doors opened for the opportunity to incorporate education and provide classes to employees & direct care staff of the nursing home residents. This has been the optimal means for preventing aspiration pneumonia. Training the staff that feed and verbally redirect these residents simply on safe strategies to eat, drink, take medication, and prevent dental disease is the direct route to preventing the initial problem from starting and improving a condition caused by various medical diagnoses.

As mentioned above, the success of Marina's company is not based on income. Success is reducing the incidence of aspiration pneumonia in the community and in skilled nursing facilities. The United States is spending \$87 billion per year addressing aspiration pneumonia. Educating and assessing the swallow with this gold standard instrumental exam known as FEES, will enable the in-house Speech-language pathologist to know the physiology of their patients' swallow, the least restrictive diet texture and liquid consistency, what strategies are necessary in order to safely swallow, and what plan of treatment (including swallowing/strengthening exercises) are necessary. The beneficiaries of this success are the patients, both young and old, as well as the government's money (coming from both Medicare and private insurance companies) which ultimately comes from the people of the United States.

The next entrepreneur interview came from my cousin, Kathy Brown, in the Providence, RI area, which is just as close to where I live south of Boston as Boston itself is located, and much of what she described to me for the interview were already in assessment format above. Kathy described her entrepreneur experience to me in the following manner. She is an independent, individual, free-lance software consultant specializing in a specific database application environment, Filemaker Pro. Her consultant work began in 1998 when her staff position at a local university came to an end. She now independently provides consulting and training in a database application environment. Kathy received no government, philanthropic, anchor institution, or intermediary institution donations for her start up consulting business, but Kathy does provide her services for local non-profits as a volunteer herself. Kathy's biggest challenge was staying current with hardware and software versions because she works

in this position on part-time-status. The growth of her business was mostly from word of mouth of completing projects for customers. Most of Kathy's clients are higher educational institutions across the country. Although Providence has less of a start up culture than Silicon Valley or perhaps Boston, many of Kathy's clients are higher educational institutions across the country that need her FileMaker Pro database skills she gained at a university in Providence, so the business she receives is within Providence and many of them are also across the country. Kathy measures her success regularly according to the amount of consulting work she has been contracted to do.

My other entrepreneur assessment that comes from my home town of Albany, NY again, which as mentioned above, is not as well known for their start up culture. Sherry Toedt did not run into any obstacles starting her business there. Sherry created her insurance and risk management business without government, philanthropic, intermediary or anchor institution contributions. Much of this is a repeat from the interview answer section, since it was already in the assessment format.

The mission of Sherry's Toedt Insurance Agency is primarily to assist small to medium sized businesses with their property and casualty insurance needs and risk management, and to help individuals find the most appropriate personal insurance coverage at the most affordable price. Risk management information, coverage education and risk reduction is also offered to the personal lines customer. Products are all lines of property and casualty insurance including bonds. Services are loss control, assistance with risk identification, risk analysis, risk control and risk financing. The services can be related to safety training/awareness, contractual reviews/risk transfer options, financing including deductible plans and retroactive rating plans as well prospective rating plans as financial tools to most appropriately price the cost of risk for a commercial client.

There was a small government role. Prior to opening, Sherry met with the Small Business Administration for a review of her plans and as a result was able to obtain a business loan that was SBA backed. The loan required that she also had my own entry equity and was used primarily for operating capital while it got off the ground. No philanthropy was given. No anchor institutions contributed to Toedt Insurance Agency. Sherry was not sure if this qualifies for intermediary institution or not. It is not support in the free sense. However, she did join SIAA (Strategic Independent Agents Alliance) that cost money to join but provides so much in return. It mostly provides access to insurance companies and the ability to earn profit sharing with those companies. Without such a membership an agency would have to have millions of dollars in written premium with a company in order to get an appointment or to ever get profit sharing. Another form of support Sherry received was from the bank where she obtained her business loan. They referred customers to her for several years until they sold to another bank that has their own insurance division. Their referrals were a nice extra but not integral to the success of my agency.

The challenges that Sherry faced as an entrepreneur include wearing all the hats-administrative, sales, service and managerial at the start, and sometimes even now, it can be very time consuming. The biggest strategic challenge for Sherry was generating new business, having the time for marketing and keeping up with it as a means to new continuing revenue growth. The initial tradeoff she had in starting my own company was the flexibility to work from her home office and be available for her child during his school years.

One of the best elements that insured Sherry's success was the network of people she had met in her community through volunteerism. So many were very supportive when she opened her business as they had had opportunities to work with her in PTA, sports, athletic boards and came to know her level commitment and integrity so there was a natural trust already built and they were willing to bring me

their business.

Other supports that helped Sherry succeed were of course her membership in SIAA (mentioned previously) and her membership in the Independent Insurance Agents & Brokers of NY as well as her membership and fellowship in the National Alliance for Education and Research. The type of support they provide can be technical (advice on websites, website referrals), sales seminars and tools and education. Sherry's 30 years in insurance made her an expert and she is all about education of the client. Many of her referrals come because her customers come to know her as one of the very few agents that completely understand what she does and care about it passionately and how it impacts them as customers. She is their trusted insurance adviser.

My last entrepreneur comes from my current home town of North Easton, MA, USA, and Joan Hartel Cabral started Vantel Pearls with loans from friends and family where she promised a return of 25% on their investment, along with her own \$1000 in savings. Joan received no government, philanthropic, intermediary or anchor institution contributions to her start up pearl jewelry business. Her biggest challenges were being a woman as a CEO and President in a male dominated business leader world, and having to make financial sacrifices at the start. Her rewards have been making her pearl jewelry demonstrators successful and confident leaders as Joan has become, financial rewards with a work and family life balance, and also her ability to inspire other women leaders at conferences and business when she and her other jewelry demonstrators share their “treasure gems” that they find help inspire other women leaders from all types of diverse backgrounds.

So in conclusion, most of my entrepreneurs did not rely on government, philanthropic, intermediary or anchor institution contributions, and either took loans, or had angel investments in their businesses, or friend and family investment, or their own savings, or they belonged to a group of venture capital type people that wanted to invest as a group, but I did interview one entrepreneur did start one of his businesses from a “technology transfer” set up from Boston University. Each one of the diverse entrepreneurs are successful and happy with their business(es) they started, and feel that any sacrifices and risks they took to get started have all been worthwhile both to themselves and the ecosystems in which they live, and others have benefited from their business success as well.