

## Oklahoma Innovations Radio Show

Air Date: January 3 & 4, 2009

Guest: **Steve Kreidler**, executive vice president, University of Central Oklahoma, and **Mark Nash**, managing director, Argent Global Services

[Music]

[Female Announcer] From the OCAST Radio Network, this is Oklahoma Innovations, a weekly Science and Technology radio magazine brought to you as a service of OCAST, the Oklahoma Center for the Advancement of Science and Technology. OCAST identifies and funds promising research that allows our state to compete in the global market economy from our own backyard. Each week you'll hear from some of the State's most gifted and talented scientists, inventors, entrepreneurs, manufacturers and business leaders who all have one common goal, developing technology-based economic growth for all Oklahomans. Welcoming you to Oklahoma Innovations are your hosts Gary Owen and Steve Paris.

[Gary Owen] Well, we certainly hope that you had a great holiday and that you're back -- ready to get back in to the game. I know a lot of people listening to program, they may have stayed home, whether it was due to weather or economics or what have you and whatever you did over the holiday time, a lot of people took more than one week, they may have taken a couple of weeks. So, you may be just getting back in the groove, but we're delighted that you're tuned in this weekend to Oklahoma Innovations. Steve?

[Steve Paris] You're looking at me when you said taking up two weeks. First time in years I've taken off two weeks.

[Gary Owen] I know, I know. So, did you have a good time?

[Steve Paris] You know we did and I'll tell you what Gary, as I look toward 2009, it got here much faster than I thought it would as we all usually experience that every year, but we're looking at some activities and things that are going to be involved in in the area of science and technology this year. It's gonna be quite a challenge for us because, for one thing, we've got a very challenging economy, not only nationwide, but world wide basis and so, we're trying to figure out at this point, just exactly where Oklahoma is gonna be in its budget process, so that means funding for science and technology too. So, we're looking down the road to see where we're gonna be. We're preparing our message for the legislature, which will be convening in about a month and it's going to be their responsibility to determine where Oklahoma spends its resources. Of course there's lots of things out there that have to happen simply because people are relying on it and it has to do with health care, it has to do with corrections, it has to do with building roads and highways and building bridges and so, science and technology is involved in every one of those issues and that's why we're making the case that, you know we need to put, not all of it, but a fair share of that funding into building our science infrastructure and that is always a challenge. I know, I try to put myself occasionally mainly in the place of the law maker and you know they have issues that are so difficult to deal with. So many needs out there, and they're all important needs. There's nothing out there that's being requested that's not important, but you know you have to prioritize and that's their challenge and so, that's the reason we try to

hopefully elect the best people possible to do that job. Our message this year is of course, we're running \$42 million.

[Gary Owen] Is that right?

[Steve Paris] You know how difficult will that be? Well, that has a lot to do with what the state budget is going to be, but we have good justification for it, we're gonna try to make our case. But I wanna talk about one more, kind of a targeted area that we're looking at and it's Tulsa. We have a lot of listeners in the Tulsa area and you know, one of the things -- this is kind of a little bit of a negative, but I'm gonna make it positive out of it. We've experience in the last several years, a downturn in the number of applications that we've had out of Tulsa and northeast Oklahoma. I'm talking about applications for OCAST Programs where you compete for money and applied research, health research, small business innovation research, and those types of areas. What we're doing now and you're gonna see more of this especially if you're in the Tulsa area, we're conducting more workshops over there, we're going to be conducting a marketing campaign to make sure that people understand that this program is available to them. And so we would like to see more applications coming out of the Tulsa -- we always have applications. I'm not saying there is none. I'm just saying there's not the proper amount given the size of the population there. Now, we're a state-wide agency. We want to get applications out of Cimarron County and McCurtain County and Tulsa and Lawton, everywhere in addition to Central Oklahoma, so our challenge this year is to get those numbers up, so that we can fund more research in Tulsa and its surrounding communities.

[Gary Owen] Where is your OCAST, your branch office in Tulsa?

[Steve Paris] You know, Gary, we have a fellow by the name of Mark, we call him. Mark Thompson. This guy that -- he heads up our office over in concert with the Department of Commerce and their offices, you know if I had it right here in front of me I'd tell you. I'll probably get that before the end of the show, but he get -- and he's also tied in with OSU Tulsa and I'll get the phone number and the e-mail address and all that information, so that our listeners in Tulsa can contact Mark and get some first-hand information of what's available for them in the Tulsa area.

[Gary Owen] That's great. By the way, we say a special hello to all of our listeners who listens to us on News Talk 740 KRMG and of course our flagship station, the KTOK in Oklahoma City. And we're delighted to have Cameron University and their station carry us all over western and southwestern Oklahoma. Great audience out in those areas of rural Oklahoma and we hope that you folks enjoy what we bring to the table. By the way, we want to mention, you know, the weeks are counting down now before and I know that you're probably getting bombarded by, whether you watch television or radio, but it's so important and particularly, when we talk to those of you who are not living in the metro area, don't have access to cable, to be sure and investigate whether your television is going to be digital-friendly because the BTB transition switching over from analog to digital is coming, February 17, so you wanna be sure that your television doesn't go -- chiiiiii. So here you go.

[Steve Paris] Well, let me just give you a little tip Gary. If your own cable, most of us are, or most of us have a satellite connection, then it's not a big issue. You're...

[Gary Owen] That's right.

[Steve Paris] It's gonna be taken care of, but what about your travel trailers, your RVs sitting out there at the lake.

[Gary Owen] That's good point.

[Steve Paris] They sure hooked up there. You're gonna have to have some type of device to make sure you can pick up out in the air, pick up the signal.

[Gary Owen] Now, see that's one thing I've not heard about and you -- of course you're a camper and you're a lake guy, so you would think about that.

[Steve Paris] Well, as a matter of fact I've bought two already for...

[Gary Owen] Little boxes -- converter boxes?

[Steve Paris] Yeah, uh-hum. Yeah and like a lot of people have. And I don't know how much I'm gonna use them, but because when you're out in the lake, you probably shouldn't be inside, you're probably should be playing, but...

[Gary Owen] Well not...

[Steve Paris] But that's beside the point.

[Gary Owen] At night, you'd be watching the news.

[Steve Paris] There you go.

[Gary Owen] That kind of things.

[Steve Paris] There you go.

[Gary Owen] Good point though. That's an excellent point, aren't -- see?

[Steve Paris] I thought about that.

[Gary Owen] That's why...

[Steve Paris] I bet some of them haven't. I didn't think about it for a while.

[Gary Owen] So you see folks, that's why I'm the voice, he's the brain. Okay, well anyway, moving right along. We have some interesting guests of this week and I'll let you introduce them.

[Steve Paris] Boy, I'll tell you why. We're gonna feature the University of Central Oklahoma and Argent Global Services today. I'm gonna introduce Steve Kreidler first. He's the Executive Vice President at the University of Central Oklahoma and you know when Steve came in a while ago, I've known Steve for years and I thought, wow, he's had that job for at least 3 years. Well he tells me he's been there about seven and a half, well that was a shock, Steve. I tell you what, you have a big job there and I know you're involved in doing a lot of things to move the university forward. Give us a little bit about -- information about your background. What you've done before you're with the university and what you're doing now?

[Steve Kreidler] Sure. Well, Steve it's a pleasure to be back on and Gary, nice to see you as well and my old friend Mark and I have go back a long way as well, so it's a real pleasure to be back on the show with you today. Yeah, before I came to the university, I was in economic development for about 15 years. I was the Economic Developer for Edmond, for the Edmond Economic Development Authority and ...

[Steve Paris] Which is why they're doing so well today.

[Steve Kreidler] You know what, it think I won't because Janet Yowell was before me and after me, as well. So, I have to say Janet is really resourceful.

[Steve Paris] So, you had nothing to do with it. She did it all.

[Steve Kreidler] Yeah, great. She was awesome. Before that I was in Norman as the Chamber Executive and at that time the Chamber is also did the Economic Development I'm working.

[Steve Paris] Right.

[Steve Kreidler] Originally grew up in Tulsa, went to Oklahoma State University and I got a degree in Business and started my life in the non-profit sector and it really been there ever since.

[Steve Paris] Transplanted to Tulsa.

[Steve Kreidler] I was transplanted to Tulsa. Yeah, I absolutely love Tulsa, both my family is still there.

[Gary Owen] Oh yeah, great city.

[Steve Kreidler] I went there for the holidays to see them and...

[Steve Paris] Fantastic. Well, you've been at the university for seven and a half years, 15,950 students.

[Steve Kreidler] Yeah.

[Steve Paris] I guess you're bumping around 16,000 students. UCO is not the all-central state college anymore. That's for sure.

[Gary Owen] I'm proud to say my daughter graduated there this past May, so right school.

[Steve Kreidler] Oh, congratulations. Wonderful. Well, my daughter went there for a couple of years before she went to OU.

[Steve Paris] Very good, very good. She has excellent training there. And we are gonna be talking more about the university here in just a little bit and [inaudible], but I wanna introduce Mark Nash, he is managing director with Argent Global Services. It's a process engineering and management consulting firm specializing in productivity improvement, quality control and cost reduction strategies for a variety of industries. Mark, how you doing buddy?

[Mark Nash] Well, great. It's good to be back. It's good to see you guys again. My life has changed a lot since the last I'm here.

[Gary Owen] I've noticed.

[Mark Nash] I am now the outside director with Argent.

[Steve Paris] Okay.

[Mark Nash] I stepped out to the day to day realm and I'm a member of the management team at Pelco Products in Edmond, Oklahoma.

[Steve Paris] Wow.

[Mark Nash] We're a manufacturer of traffic signal hardware, ornamental lighting. We're the leader in North America in traffic signal hardware. So every time you come to an air section think of us.

[Steve Paris] We will and all roads lead to Edmond, right?

[Mark Nash] That's exactly right.

[Steve Paris] Very good. Well, tell us a little bit about your background, so everybody will understand where you've been and what brought you to where you are today.

[Mark Nash] Sure. I started with Argent about 15 years ago, as a consultant focusing on transactional processes, got back into distribution and manufacturing processes along the way, eventually health care. We were working with what is now called Lean manufacturing concepts, 15 years ago. The methodology that we used mimics what the Toyota Production System and Jim Womack...

[Steve Paris] Right.

[Mark Nash] Have brought to us today called Lean -- actually used it in a lot of manufacturing settings, a lot of distribution settings. Got into health care and government and along the way Steve and I hooked up and started talking about what we could do to use Lean on the UCO campus.

[Steve Paris] And that's so important in higher education today because you know you've got higher costs and you've got higher cost of doing business and so if you can take care of that in the other end through lean processes then you can add more to the bottom line, so you can put more money into education.

[Mark Nash] Exactly. And you know the bottom line that Steve and I had both talked about from day one from the first time we started to talk about how to use lean in higher education is the fact that we're not out here trying to get rid of employees, we're not trying to reduce head count. We're trying to do more with less. Less mean less financial resources.

[Steve Paris] Right.

[Mark Nash] Less time. You know this is about how do we make our -- employees lives better. How are we're gonna make their lives easier.

[Steve Paris] Exactly. I mean, the alternative could be no one works. It could be...

[Mark Nash] That's right.

[Steve Paris] It could be a complete shut down. I guess if you carry it to the extreme. So lean manufacturing helps you -- manufacturing, here I go. I'm so used to saying it at that way, so the Lean process helps you make sure that there is -- that the process continues and in this case, higher education, it runs much more efficiently. Well, I noticed that some of the companies that you're involved with are John Hopkins, Zenith, Dayton Tire. How about Tinker Air Force Base, I bet it's the air logistics center out there.

[Mark Nash] It is, it is and to tell you that's what made it so easy when we got to UCO is the fact that when you can take a group of process engineers and consultants and you've got that ability to say, here's industry best across a broad spectrum of industries. You've got that ability to come in and say let's talk about what is unique, about, you know a higher education campus and you know one of the big things that I've said for years is no place is unique and yet every place is unique.

[Steve Paris] Right.

[Mark Nash] Because we do the same things, every where we go, the same elemental task are out there. It's just what's the environment we're in and how do we make it work.

[Gary Owen] We're going to come back and talk with Steve and Mark about, more about this Lean stuff.

[Steve Paris] Lean processes, right.

[Gary Owen] When we return on your Science Radio Magazine, The Oklahoma Innovations. Don't go away.

[Female Announcer] As you sip your coffee and flip through the electronic edition of the morning paper at your favorite cafe, the last thing on your mind is danger lurking on the other end of the Wi-Fi connection. Not only your computer, but your entire company's network maybe the unsuspecting prey of a hacker. With the support of the Oklahoma Center for the Advancement of Science and Technology, one small business owner has created a network security product that will stop hackers in their tracks. This Oklahoma ground product will provide the much needed security to small business owners, campuses and national defense creating new products, supporting innovation, that's what OCAST is all about. OCAST is looking for small business owner serious about investigating new products, services and processes that will improve the quality of life and the economy for the Oklahomans. For more information, visit our website at [ocast.state.ok.us](http://ocast.state.ok.us) and know that you're safer surfing the web with Oklahoma technology.

[Female Announcer] You can hear Oklahoma Innovations anytime day or night on the OCAST website. Just type OCAST in your browser.

[Gary Owen] We're talking about Lean. And we're talking about the University of Central Oklahoma, UCO, what a great school, right Steve?

[Steve Paris] That's exactly right Gary and when you talk about Lean, we're not talking about people just losing weight. That's not what this is about.

[Gary Owen] And we're not talking about Lean manufacturing.

[Steve Paris] Well, no, but those process still work. I'm gonna ask our good friend Steve Kreidler to give us a little bit of an overview, when you apply the Lean Process to a university setting. What are we talking about?

[Steve Kreidler] Let me tell you just real quickly how I got -- how I brought this to the university. I had learned about Lean through the Alliance, primarily...

[Steve Paris] The Oklahoma Manufacturing.

[Steve Kreidler] Manufacturing alliance, Ron Holmes, specifically, he was our guy in the area. And I had learned about Lean Manufacturing when I was with the Economic Development Authority. In fact, I helped introduced it to Phil Parduhn who's now Mark Nash's boss and they become really maybe one of the finest practitioners of Lean Process improvement of the manufacturers in this area. I think they really excel that. And I saw this process really work for Phil. I saw that they had more work coming in than they can gather the work. And they said there are only way to solve this is to hire more people and then they found that they -- by leaning up their processes, by taking out the unnecessary steps and all of the things that were repetitive or unneeded or unnecessary in any way, anything that didn't add value in the process, pulled out

that they were able to fulfill those orders in a timely basis without having to hire a great number of employees. At that time we were having trouble in the State finding enough employees. This was in a real low unemployment package.

[Steve Paris] Right.

[Steve Kreidler] So, when I came to the university, and you can imagine a university of 16,000 students, part of state government, it's a bureaucracy.

[Steve Paris] Sure.

[Steve Kreidler] And I don't mean that in the negative sense and nobody tries to make things unruly, but over time things occur and people add on processes and somebody wants to be, you know double-clicked on something and somebody wants to be carbon about this and you have to file a report here and you file a report there. So I called Ron, I said, is there a Lean manufacturing for universities? He said you know, I'll do some research. He came back and said there isn't any. And so we said, well, let's get the right people and that's when we got a hold of Mark Nash. And Mark Nash and Ron Holmes and us, we sat down and said, okay. Let's invent Lean University.

[Steve Paris] Why not?

[Steve Kreidler] There's Lean manufacturing, why not Lean University? How can we take the same principles just like Mark said, the principles are the same, but how can we put them into a non-profit environment where the outcomes are described differently than they are in the for-profit or manufacturing environment. And how can we figure out how to make these things -- how can we serve our customers better.

[Steve Paris] Right.

[Steve Kreidler] How can they get what they want, when they want it, on time, and done right the first time. And how can we do it in such a way that we don't have these giant log jams where people wait forever. And this was a common complaint. Not just on our campus, but of course almost any place you go in government.

[Steve Paris] Sure.

[Steve Kreidler] You experience these kinds of things. And that's not really for any large organizations.

[Steve Paris] Right.

[Steve Kreidler] Period. So we did. We invented something that didn't exist previously that we trademarked it called it Lean University and we've been implementing in our campus now for about four years Mark?

[Mark Nash] About four and a half.

[Steve Kreidler] Four and a half years.

[Mark Nash] Now, yeah.

[Steve Paris] Wow.

[Steve Kreidler] And we have success after success after success in being able to streamline processes. We've saved thousands of work hours that we've taken from people who were fixing

the same thing over and over and over, responding the same complaints, waiting lines of people. We've reduced those things in area after area after area on our campus and re deploy those people in their efforts to higher level thinking.

[Steve Paris] Wow.

[Steve Kreidler] Why should they do grunt work every day when they have an opportunity then to solve problems and be visionaries and really implement great customer satisfaction for our customers, for our students, and for our internal clients on campus.

[Steve Paris] What was the reset process on this? How long did it take to do that?

[Steve Kreidler] The, well...

[Steve Paris] When is your real...?

[Steve Kreidler] We've been on for like four and a half years.

[Steve Paris] Okay.

[Steve Kreidler] Each process you can do in a real compact way, which is one of the real I think right deliverables about Lean and Mark is a better expert on this. But one of the things that you can do is you can identify a process that needs to be improved. And if you dedicate yourself to it -- really dedicate the resources to it in one week, you can go from the discovery -- the description of the problem through the value stream mapping process through to a Kaizen event end of the week where you change the process forever and you are operating on a new mode in a week.

[Steve Paris] Wow.

[Steve Kreidler] We did that with a work order process on our campus. This was a very first one. You know a work order on any large organization something doesn't work, and so you have to get a hold of a physical plan folks or your maintenance people and they're gonna come fix the door know that doesn't work anymore or the light fixture that's no longer working or a carpet that's torn or whatever.

[Steve Paris] And I'm sure president Roger Webb looked at what you were doing and said, hey guys, you're gonna save the university money. Keep it up.

[Steve Kreidler] We did and we saved enough work hours. We had so many people processing paper, not fixing things.

[Gary Owen] Yeah.

[Steve Kreidler] That we eliminated two paper processing jobs just on work orders.

[Steve Paris] Wow.

[Gary Owen] Wow.

[Steve Kreidler] We're able to take those people and put them in places where we desperately needed their help and their talents on our campus.

[Gary Owen] And see, that's good news. They didn't lose their jobs. They were put to a better application.

[Steve Kreidler] We did, a higher and better use.

[Steve Paris] That's good.

[Steve Kreidler] We had 3,000 work orders back logged when we started this. We've gotten less than 300. We went from an average of -- what was it, forty-five days waiting time?

[Mark Nash] Over 45 days waiting time.

[Steve Kreidler] But when you issue the work order until we actually fix something took 45 days and people on our campus had gotten used to it because it's been that way so long.

[Gary Owen] Sure, sure.

[Steve Kreidler] Because the backlog had lasted so long and now almost everything are gonna be responded to the day it comes into our office. A long wait is two to three days and that's if we have to order parts that don't exist in our campus or something like that. But part of the Lean process created stores that we've got better supplies and they're kept up to date better, but we repeated that now in everything from admissions processes, to curriculum development, to international student processes, to the legal office, to the president's office, to my office to more and more things than physical plant.

[Gary Owen] Mark, we've got just a very short time here in the segment, but you had a report, you know with Steve Kreidler before you got started on this process that had to make it a little easier or was it tougher.

[Mark Nash] It made it a lot easier.

[Steve Paris] Okay.

[Mark Nash] You've got to have that support from the top and if you've got that, you can drive it down from the top saying you know, we're gonna do this and then you're gonna turn around and let the people at the bottom do it and that's what's so important.

[Steve Paris] Great. We're talking with a couple of great guys here that -- I hope you are learning something. Are you learning something here?

[Gary Owen] Well you're gonna learn more when we return at Oklahoma Innovations. Don't go away.

[Female Announcer] This is Oklahoma Innovations on the OCAST Radio Network.

[Male Announcer] Too many graduates are leaving our state to find jobs. But the Oklahoma Center for the Advancement of Science and Technology is working to connect students with some of the areas most prestigious scientific and engineering companies. The connections are established through OCAST RND intern partnership program allow Oklahoma students to gain hands on experience and employment in high-paying industries. With the starting salary nearly 8 percent higher than Oklahoma's average per capita income, OCAST is attracting and retaining Oklahoma's most valuable asset, our people, while improving our economy, creating jobs, wealth and investing in our future. That's what OCAST is all about. For more information, call OCAST toll-free at 866-265-2215 or visit our website at [ocast.state.ok.us](http://ocast.state.ok.us). OCAST is connecting industry leaders with the innovators of tomorrow earning an A-plus for Oklahoma students.

[Male Speaker] Did you know the electric fence chargers that keep livestock within their boundaries were manufactured here in Oklahoma? Carl [assumed spelling] and his handcrafts his fence chargers in his shop in Cherokee. Folks just like Carl live all across Oklahoma. In fact, there are more than 150,000 manufacturing jobs in our State. These hardworking Oklahomans create the products used in our daily lives. The compact of threat of outsourcing, the Oklahoma

Center for the Advancement of Science and Technology supports these manufacturers by funding the Oklahoma Manufacturing Alliance. The alliance connects manufacturers to cost effective resources, more efficient manufacturing processes and technology to increase productivity and reduce costs ultimately keeping more jobs in our State, creating new products, maintaining jobs, improving the economy, that's what OCAST is all about. For more information, visit their website at [ocast.state.ok.us](http://ocast.state.ok.us). OCAST, helping manufacturer about better tomorrow for Oklahoma.

Female Announcer] It's all about Oklahoma Technologies Research Science and commercialization. This is Oklahoma innovations on the OCAST Radio Network.

[Gary Owen] Thank you for joining us on this week's edition of Oklahoma Innovation, your science radio magazine, Steve Kreidler, the executive vice president of the University of Central Oklahoma and Mark Nash, managing director with Argent Global Services on our program this week talking about more Lean processes and we're not talking manufacturing the show as you've been hearing -- we're talking about within the university sector and that's a fascinating stuff we've been listening to Steve.

[Steve Paris] Unless of course you're managing knowledge in creating bright minds for our future that is a bit of a manufacturing process that mean it's a stretch to call it that, but that is the end result hopefully of all these. Steve, UCO is a great school and it's one of the oldest institutions, more mature institutions in the State of Oklahoma -- maybe that's a better way to say it.

[Steve Kreidler] That's right.

[Steve Paris] And but you know give us an idea of just how UCO fits in to the State of Oklahoma. I know you've got -- talk about your, you know your -- the student population, talk about what it means to the State.

[Steve Kreidler] You bet, you bet. UCO is one of the original normal schools that the schools that were created around the state to teach teachers...

[Steve Paris] It was a teaching school.

[Steve Kreidler] Yeah, it was a teaching school and we were that for a great number of years before it became a college with multiple colleges and then a university. And we'd fit in to the state in the role of what previously been described as regional universities. The schools that have directional lanes plus our friends like Langston and Cameron and Pan Handle and Rogers [assumed spellings] and those names...

[Steve Paris] Directional lanes -- that's...

[Steve Kreidler] Directly through Northeastern or Southeastern Central -- right the directional schools. UCO is really more off over the years into what's now in the higher educational world is considered a metropolitan university. We're here on a very large metropolitan area about a million three hundred thousand people where the school that is aimed at providing for that metropolitan areas greatest needs. And so we serve students -- we have students from right, now about eighty-five foreign countries and all counties in every state in the country. We have almost -- almost ten percent of our student body are international students. So it's a very large, very urban, very metropolitan, cosmopolitan university with the you know six colleges and in many, many degrees in education being you know one of those...

[Steve Paris] You know when you think about the contrast between the University of Oklahoma and the UCO as far as book ends, North and South to Oklahoma City both communities being really nice communities are for students to live in, to work in, to go to school in...

[Steve Kreidler] Right.

[Steve Paris] Says a lot for your positioning.

[Steve Kreidler] Absolutely and two different kinds of schools and if you think of OU and OSU and you see as being the three largest universities in the state, OU has a terrific positioning in our state to be a real flagship university. Oklahoma's answer to a Michigan or our Georgia Tech or a University of Texas -- you know a great worldwide internationally renowned public institution. OSU has a tremendous mission in as land grant university in serving -- you know all of the counties in the state in a very positive way in reaching out and UCO taking a real strong interest in the growth of the metropolitan area. And so today -- you know our students are mostly full time students. It's not really a commuter school. I think maybe in the 60's and 70's it had a bit of a reputation, a place you went just on the part time basis, but 70 percent of our students are full time students compared to OU, UCO which were about 80 percent full time students. So, we're very much like them in those respects, but they are the universities that will carry our research needs in the future and we'll continue to be a school that helps prepare people for their careers I believe.

[Steve Paris] Very good. Mark, he just described the setting. I'd like for you to describe the process. Lean manufacturing -- Lean processes for universities. When you encountered this challenge give us kind of a run down of what you first saw, the opportunities, the challenges and we'll call this specific to UCO that made this process work?

[Mark Nash] Okay. To be quite honest what we saw when Steve gave me the first tour was what we see everywhere. You see the same amount of excess processing, extra paperwork...

[Steve Kreidler] Because that's how we've been doing it.

[Mark Nash] Because that's how we've always done it.

[Steve Kreidler] Yeah.

[Mark Nash] You know you're seeing people just wear themselves out working instead of working smarter they just keep working harder and harder and harder as we continue to cut back on the financial resources that we have. And so that -- you know that was really that was no different. At the same time we were working with a series of manufacturers, Pelco included on how we apply Lean not just on the manufacturing side, but on the transactional side, so all those paper processes in the office. We're also doing it in healthcare at the time with several different big clients. And so when Steve and I sat down start talking about how we do this, it was very natural to say, just look at industry best practice and start talking about what you have to do to eliminate all that non-value added activity, which is really what's at the heart of Lean. It's get rid of the waste and you know, Steve you keep accidentally saying Lean manufacturing.

[Steve Paris] Yeah, I do -- I...

[Mark Nash] But that's okay because the truth of the matter is, is it when you get into this and you start looking whether it's -- you know on a college campus or you know an insurance company, a hospital, the truth is you're looking at those processes and you think of them as two different types: Transactional which what we really think about on a college campus or

production. And the truth is on the UCO campus just like every other higher education campus you have production processes. Claims payment is a production process. High volume everyday, purchase requisitions same thing, payroll, enrolment. When you're talking about the enrolment process and how we move students through it, to be quite honest it doesn't run all year long, but I tell you what when it runs it is high volume. It is a production process.

[Steve Paris] But you know there's an advantage when it isn't running that you've got time to revamp...

[Mark Nash] Yes.

[Steve Paris] On some other -- on some other for upcoming issue.

[Mark Nash] And we did that. We actually attacked the financial aid and reverse our process in between those peak enrolment periods which really gave the staff time to chew in and into it and think about what was going on.

[Steve Paris] Yeah, well, how was this received by the staff and the -- well, I assume both the teaching staff and that the professors and the other staff members that you had to engage them at some point. How did they react?

[Mark Nash] It's... You know a lot of people came to both Steve and I and said well you know like that's just so different.

[Steve Kreidler] It's new, it's different, it changes hard.

[Mark Nash] It will -- well, but I mean they're saying it different from the manufacturing world.

[Steve Paris] Okay.

[Mark Nash] But truth is it's not. You know when you start applying Lean in manufacturing you run into those human road blocks, those people who don't wanna change, on the transactional side even on the manufacture. We found the same thing at UCO is they were -- proportionately, there might have been a few more people who really didn't want to jump in to begin and get their feet wet, but you know what, overall we have found so many people who are like, this is what we ought to do, this is a breath of fresh air for us. How do we do more of this?

[Steve Kreidler] Yeah.

[Gary Owen] I've got an interesting question related to that. In the age demographic for example employees who had been in the administration for a long time used to doing that same old thing, the same old way as opposed to younger employees and staff who are used to the modern change, the technology. How does that fit into the picture?

[Steve Kreidler] You know I have to say that one of the things that's most important is that when you engaged the frontline worker, whether they have been there a long time or more recently. They know where the pain points are. They can tell you what's driving them crazy about their job and even if they've gotten used to it, but the real secret in Lean is that you bring the frontline workers who interface with your customers, in our case was students or with inside or outside personnel and they describe what doesn't work and the customer describes what doesn't work. And what you really doing is alleviating pain and this is a...

[Gary Owen] That's right.

[Steve Kreidler] This is a wonderful gift to give people.

[Steve Paris] Oh, yes.

[Gary Owen] It is.

[Steve Kreidler] Our customers are in pain, or our students are in pain, our clients are in pain and our employees are in pain. Now, this process does not work very well if it's externally imposed.

[Steve Paris] Yeah.

[Steve Kreidler] If I called up one of the department say, by the way I think your -- you got a lot of excess, you need lean up. All the resistance goes up.

[Gary Owen] Sure.

[Steve Kreidler] And they think that you're trying to mess with them. So what we've actually done and Mark was really instrumental in making sure we understood this, that we to go to people and say, you know where's your pain point? Can we apply this and see if it will help and so what you got were people, they were enthusiastic about making the change.

[Gary Owen] You're making it their ideas.

[Steve Kreidler] And they're the ones that are telling you how to fix this.

[Gary Owen] That's great.

[Steve Kreidler] The real challenge are the mid-managers who always sort of thought that that was their job and it takes going through the cycle before mid-manager understands that their job gets better when this happens.

[Gary Owen] Interesting.

[Steve Kreidler] They don't look bad because, maybe they -- quote should have done it themselves, the process gets improved, their employees are more motivated, they're excited, they're ready to be asked by their mid-manager or supervisor to do higher and better things.

[Steve Paris] Yeah, how engaged were the professors at UCO because this sounds like it's more for the butchers, more for the vice presidents of academic affairs, things like that.

[Steve Kreidler] We are applying these processes on now on a request basis. In other words again we're not taking the higher level administration to university and going out and saying fix this, fix this, fix this. We are letting the examples prove to themselves that people can ask. And so what we did is we hired the full time employee who does nothing but Lean up processes all the time.

[Gary Owen] That's great. We've got to take a break and come back and talk to you guys because this is just super stuff. We're talking about Lean, a systematic approach to identifying and eliminating waste through continuous improvement when we return on Oklahoma Innovations.

[Female Announcer] This is Oklahoma Innovations on the OCAST Radio Network.

[Female Speaker] Skin cancer is the most common form of cancer in the United States, but thanks to technology developed by an Oklahoma researcher, parents can enjoy a day at the pool without worrying about the sun damaging their children's skin. The latest breakthrough in sunscreen provides smoother coverage and superior protection against both UVA and UVB rays without harmful chemicals. This technology was developed in an Oklahoma lab by research

funded through the Oklahoma Center for the Advancement of Science and Technology. Improving lives, creating new products, that's what OCAST is all about. OCAST is looking for Oklahoma researchers serious about investigating new products, services and processes that improve the quality of life and the economy for Oklahomans. For more information visit our website at [ocast.state.ok.us](http://ocast.state.ok.us). The scientific industry is shining bright for Oklahoma.

[Gary Owen] The University of Central Oklahoma offers training and support to apply what we been talking about transactional Lean principles in education and government organizations. Over the last six years Lean has transformed UCO from a hard working organization with band aid patches and processes to an organization that tackles process issues head on with a systematic approach. Steve.

[Steve Paris] That's exactly right, Gary and that -- it begs the question. You all have had so much success with this -- the application of the Lean process. Other universities have to be saying this - - I'm sure they're out there wondering how do we do that?

[Steve Kreidler] Right, right.

[Steve Paris] Address that, will you?

[Steve Kreidler] We've won -- we've won so many national awards for our Lean University system that I couldn't even name them all for you and yes that means that other universities have been -- have been listening as we've made national presentations at national meetings and national webinars and Mark and I went to Washington DC and did a national webinar for universities across the country on this issue.

[Steve Paris] Wow.

[Steve Kreidler] Several years ago now, I think.

[Mark Nash] It has been almost three years ago we went to Milwaukee.

[Steve Kreidler] Yeah, but... We went to Milwaukee and taught there and I taught at others without Mark occasionally and yes other universities are very, very interested. There is -- for about twenty years across the nation, the percentage of funding in higher ed budgets by state budgets has been decreasing as a percentage of state budgets. And in -- in that -- you were not -- that is not a complaint. It's just the reality of other demands on state resources. And so we know that the model that where the state used to really take care of higher education by paying seventy or eighty percent of the cost and the student picked up twenty or thirty percent of the cost is long gone. Students now pay closer to sixty percent of their cost and it's moving up closer to seventy at some universities like OU is close to seventy percent student funded. We know we have to be Lean. We have got to give the student this great education. That's what's all about in the end.

[Steve Paris] Sure.

[Steve Kreidler] They have to get the best possible education and that means that we have to spend as little money on extraneous stuff as we can, so that the maximum amount of money can go in to educating students.

[Steve Paris] No one...

[Steve Kreidler] In Oklahoma, more students.

[Steve Paris] Yeah.

[Steve Kreidler] We don't want it cheap, we want efficient.

[Steve Paris] And that...

[Steve Kreidler] So we that we have -- we have to be efficient. Tax payers deserve it, students who pay his tuition at least deserve that, period.

[Steve Paris] Upstate.

[Steve Kreidler] So yes, other universities have started to take attention in fact. We got so much attention and so much demand for us to teach others what we have learn and what we have built together at UCO that we formed the Center for Strategic Improvement which teaches people on a nationwide basis now. And we'll say in UCO's favorite, it's a for-fee deal. We don't give this technology away and we bring money to the bottom line in the university to help put some more money in the coffers.

[Gary Owen] That's -- that's great.

[Steve Paris] So, the more money can we give from Texas and Kansas and grill we can very well in California and other state as well.

[Steve Kreidler] That's a good thing.

[Steve Paris] And so, now you call me now. How's the Lean Institute. It has the official Center for Strategic Improvement.

[Steve Kreidler] Center for Strategic Improvement.

[Steve Paris] But it is affectionately called the Lean Institute.

[Steve Kreidler] Right, we think of this as the Lean Institute.

[Gary Owen] Okay.

[Steve Kreidler] So yes, we are doing it all across the country now.

[Gary Owen] Outstanding and about how many schools proximately have availed themselves of this?

[Steve Kreidler] Oh, gosh. I'm gonna guess about forty or forty-five so far.

[Steve Paris] Wow.

[Gary Owen] Wow.

[Steve Kreidler] Yeah.

[Steve Paris] Wow and does it going all the time?

[Steve Kreidler] Yes.

[Steve Paris] You were there?

[Steve Kreidler] Yes, we do both. We built custom program, as well as we run several teaching programs on our campus where people can fly in or if they're in the State can drive in and do everything from one day to week-long to two-week long sessions where they get trained to get back to their campus and implement Lean University on their own campuses. We also will go to their campus and help them do the first project, so that they really make sure that they get it done right and -- and get grooved in.

[Mark Nash] And we're now in the early stages of evolving that from just higher ed to government in general.

[Steve Kreidler] Right, right.

[Mark Nash] The university has got Ron Holmes who used to be with manufacturing lines, working part time now.

[Steve Kreidler] Right.

[Mark Nash] To actually go out and start promoting it to government agencies.

[Steve Kreidler] Right. We've opened a division called lean government and we're...

[Steve Paris] Wow. How far along is that?

[Steve Kreidler] We just started.

[Steve Paris] Okay.

[Steve Kreidler] And as I walked in today I took the phone call from our first paying client...

[Steve Paris] Really?

[Steve Kreidler] In the state of Oklahoma, one of the state agency's -- one of the issue appealed today that we've been meeting with several and we have a -- we have a large number that are very interested because we all know where this is going.

[Steve Paris] You need to be on our show more often.

[Steve Kreidler] And I do wanna -- yes, and it is. I hope it's good for business. I do wanna mention also that we use both of Mark's books as part of our textbooks for our classes that we give the students. Mark is an author of two of the really most practical of the Lean books that are out there. They're really easy to use and they make great way to use in a textbook format for students that we use and so we're really glad that Mark is -- went through the trouble.

[Gary Owen] Did we get a copy -- did we get a copy of that book?

[Steve Paris] I don't think we did.

[Mark Nash] No, I probably need to take care of that tonight.

[Steve Paris] I want to know more about your -- this prolific writing Mark. You tell us about the genesis of your two books and...

[Mark Nash] Okay, the first book is actually titled "Using Lean for Faster Six Sigma Result."

[Gary Owen] Okay.

[Mark Nash] It's like bringing in another continuous improvement methodology and several years ago when I got my six sigma black belt, the challenge became how to use this two disciplines together. There was a lot of what I felt was misinformation, a couple of people that I have done a little bit of work with at that time. Actually one of them was my instructor from my training. We got together and the three of us wrote that first book saying how you synchronize your effort, so that you can use any two or more methodologies together instead of trying to create a brand new program.

[Gary Owen] I see.

[Mark Nash] The second book is entitled, "Mapping the Total Value Stream: A Comprehensive Guide to Production and Transactional Processes and that actually came out of what we have been doing with the University Central Oklahoma, with Pelco products, with American Fidelity Assurance Company in Oklahoma City and with PathLinks Pathology Services in England.

[Gary Owen] Okay.

[Mark Nash] In the United Kingdom and we took a lot of a lessons learn about value stream mapping which is a process mapping technique and created a book that actually put both production and transactional mapping into one book where everything else that had been in the market was in. It was either manufacturing or it was what we affectionately called office.

[Gary Owen] Wow.

[Mark Nash] And we said, you know what there is no difference, it's just some subtle changes on how to use the technique and...

[Gary Owen] And those are your course books now for this...

[Steve Kreidler] We use -- we use both books in different -- in different parts of this.

[Steve Paris] Outstanding and your other colleague Ron Homes whose been around for a long time involved in manufacturing, he's also an author. And the name of his book, he eludes me right now and I'm not gonna try to remember it, but I have seen it and read it and he is a -- he is too a prolific author.

[Mark Nash] And it has to deal with -- actually working in and or competing in a global environment. How we bring our global economy.

[Gary Owen] Right.

[Mark Nash] How we bring everybody together worldwide and how you compete and how you get in, where you need to go which to be quite honest has really worked well as we've try to figure out where else you can go with the University Central Oklahoma.

[Gary Owen] Right. Now, gentlemen I don't know if you came prepared to give us websites, telephone numbers things of that nature for people out there who might want to know more about this. Are you prepared to do that today?

[Steve Kreidler] Is that a challenge?

[Gary Owen] Yeah.

[Mark Nash] Well, I can tell you.

[Steve Kreidler] Go ahead.

[Mark Nash] At the University of Central Oklahoma we have -- I believe it's [www.ucocsi.com](http://www.ucocsi.com). If you wanna know more about Argent, it's [www.argentglobal.com](http://www.argentglobal.com). We've got quite a bit of information now at the Pelco website.

[Steve Paris] Outstanding.

[Mark Nash] Which is [pelcoinc.com](http://pelcoinc.com).

[Steve Paris] So you can -- there's lots of information out there and then, you're easy to access. I guess if you're totally get lost, didn't write anything down you could probably go to UCO and get

a hold of Steve Kreidler and he'll -- he'll put you in touch with Mark and Ron and the whole team.

[Steve Kreidler] That's right. If they call 974-2000 just call and ask for Steve Kreidler they will get the call to me.

[Gary Owen] That's area code 405-974-2000.

[Steve Kreidler] 405-974-2000.

[Steve Paris] Outstanding. Gentlemen, you've been a wealth of information I -- you're involved with so many things. You know, the forensic science aspect that was kind of relatively recent or at least recent as far as the public's awareness at least my awareness of it and I know that built a great facility up there. The OSB crime lab, you have two programs Bachelor of Science and Forensics for insect science and the Master of Science in Forensic Science. Tell us about how that program marries up and how that'll works.

[Steve Kreidler] Well, the forensic science program has primarily been a biology chemistry program and train people to do the lab work -- the wet lab work in crime resolution and this program now brings in all of the other aspects. There's forensic accounting and forensic psychology and forensic, you name it today being brought into and under the direction Dr. Dwight Adams, the UCO graduate, our forensic science program that came on, eventually became the director of the FBI crime lab U.S.

[Gary Owen] Very good. Mark, I'm gonna ask you a quick question. I'm gonna ask Steve the same question.

[Mark Nash] Okay.

[Gary Owen] Argent global, where are you gonna be five, ten years down the road?

[Mark Nash] Well, we hope that we're still headed the direction we are. All the directors at Argent as well as the shareholders believe that as we continue to grow not just lean methodology in six sigma, but all industrial engineering disciplines that will continue to branch out. Right now we've got a pretty good size team in the United Kingdom working and we're hoping that continues throughout Europe and the United States.

[Gary Owen] Steve, you've got about ten seconds. UCO, where are you gonna be five or ten years down the road?

[Steve Kreidler] We're going to be the major metropolitan university in the Oklahoma City and the Oklahoma City area deserves as Oklahoma City becomes one of the great tiered two cities in United States.

[Gary Owen] Great! Steve Kreidler, Mark Nash, thank you for being our guest this week. A great information. I hope our listeners gained a lot of insight as this new program continues. Steve, we'll see you next week.

[Steve Paris] See you, Gary.

[Gary Owen] On Oklahoma Innovations. Have a good week.

[Female Announcer] Oklahoma Innovations is brought to you by OCAST, the Oklahoma Center for the Advancement of Science and Technology. To learn more about OCAST and to hear a repeat broadcast of today's show anytime online visit our website by typing O-C-A-S-T in the

search window of your web browser. Once you've located our website just click on the radio link. Join us at the same time next week and discover how Oklahoma's investment in science and technology is building a better economy for all Oklahomans. This program is a production of the OCAST Radio Network.