How Minnesota's Economy Became Above Average: Lessons from History

Dan Finn:
Good evening. My name is Dan Finn and I'm happy to welcome you this evening. We're going to have a lecture followed by questions and answers, followed by some light refreshments out in the lobby. I hope you can stay for that. I'm really delighted to introduce our speaker tonight. He is Professor of Economics here at St. Ben's and St John's. He holds a PhD from the University of California in Berkeley, but did his undergraduate work at the University of Minnesota. He's been department chair of our Econ Department. He's been the Joseph Farry Professor Distinction here. He's taught all kinds of courses including First-year Symposium and a whole raft of econ courses. Macroeconomics is his specialty, as well as, our Capstone course.

He's got a special connection to somebody you probably heard about, a guy named Ben Bernanke. ***audience laughter*** Now it turns out that Ben had this job in Washington for about eight years. He was the head of the Federal Reserve and the rule is, if you're doing that job, you can't make any money doing anything else. And so Bernanke is very famous for having a very effective and important introductory economics textbook with another colleague, Robert Frank, who actually gave this lecture a few years ago. And so for the years when Bernanke was in charge of the Fed, he was not allowed to work on that textbook written by Frank and Bernanke. And so they needed a macroeconomist to do it, and who did it, it was our Louis Johnston who substituted for Ben Bernanke. ***audience applause*** Louis is also an author, then, of introductory textbooks.

He's also been an external reviewer for a number of publishers and their textbooks. He's been a contributor to the Oxford Encyclopedia of Economic History. He's presented scholarly work at the American Economic Association, the National Bureau of Economic Research, the Minnesota Academy of Science, the economic history seminars at Northwestern University, University of Illinois and Harvard. He's presented at the Cliometric Society and, of course, those of you in the audience who have had a strong liberal arts education will guess what the Cliometric Society does, because, of course, Clio was the Greek muse of history, and these are folks who applied statistics to history and this is one of Louis's specialties. He's also been involved in a popular articulation of economics. He's been a columnist for Minnpost for a long time. He has been, and still is, a regular at Minnesota Public Radio for, a long, many years doing midmorning and midday programs, now still does it twice, yearly, program on the state of the economy with Gary Eichten and Chris Farrell for MPR. He's a regular guest on WCCO Radio. So he's probably the best-known academic in Minnesota, given all that he's been doing on the radio. Even though the University of Minnesota has some very distinguished professors, nobody understands… they don't know their voice when they speak. But when you hear Louis speak, you've heard him before.

His work has been cited in the Washington Post, the Los Angeles Times, the Associated Press. And, of course, one of the characteristics you need to have to get on the radio is, that unlike most of us academics, here is a man who can speak clearly in short sentences. The rest of us have to make all kinds of distinctions and he knows how to get through to the essence of it. So he's dealt with the stock market crash of 1929. He's got an essay entitled Bill Gates: the Robber Baron you might want to check out. The smoking gun theory… economic expansions don't die of old age, they are killed, he says.

But this is not a gloomy scholar of the dismal science that we have with us tonight. He's dealt with many different topics of other sorts… the state sales tax, US competition in the world. He's famous for having created a really important set of statistics about the GDP of the US from 1790 to the present. Not something that you probably use every day, but there are a lot of people who depend on it. He's talked about stagnant wages and immigration and healthcare in China. And one final one I'll mention that you'll probably want to look into when you get home… the title is What the Heck is the Federal Reserve? In any case, it's my honor to introduce to us all, my friend and colleague, Dr. Louis Johnston. ***audience applause***

Dr. Louis Johnston:
Thank you, Dan. That was so kind. I appreciate it. And thank you to all of you who are here tonight. Being an economist, I know that there's opportunity costs to everything. There are alternatives. There's Monday Night Football, right? There are night classes that some of you should probably be at, but aren't. Those of you who are here under duress, meaning that you're required to be here because your professors told you to be here, I will try to make it worth your while.

So the title of my talk is behind me here… How Minnesota's Economy Became Above Average. So let me explain a little bit about what I'm getting at here. Here's a very famous picture. In 1973 Minnesota hit the big time. We were on the cover of Time Magazine. Governor Wendell Anderson on the August 13th, 1973 issue is shown here holding up what looks like a freshly caught northern pike. At his funeral, two of the eulogies alluded to this fish, one by his son and one by Governor Dayton and both of them said no one knows whether the fish was freshly caught or had been put in a freezer ready for the picture. But the picture stayed with Wendell Anderson to the end of his life. And 1973, it turns out, was a really important year for Minnesota. Nineteen seventy-three was actually the year that Minnesota became above-average, in the sense of, our average income was above the national average, starting in 1973, and stayed there and has stayed there ever since. It was also the first year that Minnesota led the nation in life expectancy. We had the longest life expectancy of any state. It also turns out that 1973 was an important period here in Collegeville and in this area. A relatively young, late 20s, early 30s writer was starting to tell stories about a little town that time forgot and that the decades cannot improve known as Lake Wobegon. And he ended his stories with a little phrase, it's the place where all the women are strong, all the men are good looking, and all of the children are above average. And I think that's really important to understand because, here in 2018, I think we take it for granted, a bit, that Minnesota is above average. In fact, I think a lot of us think that we've always been above average. Isn't that what Minnesota's all about? That would have really surprised people back in the 1930s and 1940s. In particular, in 1939 Governor Harold Stassen appointed a commission, called the Minnesota Resources Commission, whose charge was to ask what is going on with Minnesota's economy and why are we falling behind. I've been working in the archives at the Minnesota Historical Society. They put out a pamphlet in 1946 to try and talk about this and get people thinking about it and one of the first pages is this one. It says “how are we doing? Well, not so well”. In fact, in several important respects, Minnesota is slipping behind the rest of the nation. And It’s got pictures with, basically, numbers falling off cliffs talking about how terrible things are. So I think people who were around in 1946, who were paying attention to this, would have been very happy in 1973 to see us on the cover of Time Magazine.

So how did we get there? I think that's a really important question. Let me give credit where credit is due. An economist at the Minneapolis Fed named Terry Fitzgerald first alerted me to this question. He wrote a piece in 2003 where he showed that Minnesota went from below average to above average since World War II. And I was expired by this and thought it was a wonderful piece and I wrote to Terry and I said “you know I don't want to Horn in on you if you're going to be working on this” and he’s like, “na, I'm not going to do anything more on it”. So, okay, I've basically been obsessed with it now for the last 15 years.

First thing we're going to do together, kind of follow the way I looked at it, is what do the numbers tell us? What does economic growth in Minnesota look like? And how far back can we push the data, ‘cause, as Dan mentioned, I'm an economic historian. So that's one of the things we do. Then, since I'm an economic historian, as well, I want to use the tools that economists use to understand how economies grow. What the famous economist, named Simon Kuznets, named modern economic growth. So we'll talk a little bit about that, but I promise no equations. Don't worry about that, those of you who are concerned about that. Then we'll put the two together. We’ll try to look at Minnesota’s story of economic growth through the lens of what economists know about how economies grow. And finally, since this was the subtitle of my talk… I thought I better have some. What are some lessons from this story? How are we going to be able to stay above average? What are some lessons from history about it?

So let me start with economic growth in Minnesota. So economic historians, going back to the 1950s, have put together national income data. So Dan mentioned it. I worked on a project for many years that looked at GDP before 1928 and tried to drive it back to 1790. There are other economists who’ve tried to look at things at the state level and at the regional level and, generally, they’ve pushed these data back to the 1840s, but for Minnesota the earliest we've got is 1880. So if you put together what's going on in 1880, in Minnesota, and kind of check in at ten year intervals, here's what you get. Let me explain the picture. If you look at the vertical axis on the left, you'll see the number one. That means that Minnesota's per capita income is the same as the national average. If you're above one, that means Minnesota's above average. If you're below average, that means you're below one. Now with so many people here, I can't do what I would usually do in a classroom, which is, I would call on someone to say, “well what do you see in this picture?” But I'm not going to do that tonight. I'll tell you what I think I see in that picture. what I see is that up until about World War I, Minnesota was above average, and in fact, was increasing its ability to be above average. And then sometime between 1910 and 1920, things went terribly wrong. We went from about 10% above the national average to about 85%

of the national average in average income and we stayed down there, below average, until 1973. This is data every 10 years, but we can use annual data from 1929 to show that. So my first thought when I saw these data and started thinking about them was… having been someone who grew up in the Twin Cities and watched television a lot… was, but what about the five-state area, right? Every night at the 10 o'clock news they talk about the forecast for the five-state area. Is this just a story of the Upper Midwest? So, naturally, the first place I look at is Wisconsin. There's Wisconsin. Hmm, doesn't look the same, especially since World War II. Wisconsin has pretty much been flat at about 95% of the national average. There's some waves in there and certainly Wisconsin was above Minnesota during the 20s, 30s and 40s and even into the 1950s, but once they hit their plateau in the fifties, they've pretty much stayed there. Hmm, So we can't really learn anything directly by just saying "well, it's just a rising tide that's lifting all five states." How about Iowa? Well, Iowa looks a lot like Wisconsin except lower in terms of per capita income. They got hit even worse by the farm crisis, the Great Depression and so on. There we go. Right in here. How about South Dakota? Ooh...jeez!... ***audience laughter*** sixty percent of the national average. Now notice over here, at the far right, things have been improving. It's nice to live next to a place that's found oil. Always helpful. ***audience laughter*** Right? It's like, choose your parents well. Same principle. Which kind of leads you to think "well, what does North Dakota look like?" Ooh, even worse during the Great Depression, but they've been riding the boom. And actually, if you extend this to the present, that has come down again below Minnesota's because of the decline in the price of oil that's happened over the last three or four years.

So Minnesota's different. Minnesota doesn't look like it's neighbors. There's something unique to Minnesota that seems to be going on and so what I've tried to do is figure out what are the things that are unique to Minnesota that allowed us to become above average. The place I started was with my training as an economic historian and as an economist. When economists think about economic growth, we usually think about something, as I said, called modern economic growth. And when we think of modern economic growth, what we mean is this picture right here. I call this the hockey stick of economic growth because, notice, along the bottom here… here's the handle… if you look at, basically, the last, the period from 1500 back to around the birth of Christ, it didn't matter where you were born on the Earth. Your standard of living was pretty much going to be the same, on average. But something happened, starting in the 1500s, to change that. You started to see England, eventually North America, Western Europe start to take off. And in the 20th century you saw other areas of the world start to do the same thing. This was a known phenomenon, obviously, from the people who live through it, but economists in the late Nineteenth and early Twentieth Century really wanted to understand it and the person who really went at it first was an economist whose name is Simon Kuznets.

Now, again, if this was class, I'd have you raise your hands, but I can't see half of you through the lights. So you've probably heard of Simon Kuznets, once, in your introductory economics course. He's often referred to as the father of GDP, of gross domestic product 'cause he was one of the people who invented the concept. What I always find funny is, nobody says why he was doing it. The reason he was doing it was because he wanted to understand modern economic growth. He wanted to understand, why are some countries richer than others? Why are some countries growing more slowly than others? So he formulated a definition that economists have used, ever since, to describe this phenomenon. He said “modern economic growth is a sustained increase in per capita product, often accompanied by an increase in population.” So it isn't just that the average is rising because the number of people are falling. You’ve got population growth and you've got increases in the average standard of living. And 3rd, there are sweeping structural changes. It isn't simply the case that you're producing more and more and more of the same old stuff. Now, Kuznets won the Nobel Prize in 1972, so far be it from for me to criticize him, but he wasn't the most elegant writer in the world. This is kind of a dull way to think about it, I think, but it gets the point across.

It does leave one big question, though, which is, how does this happen? And so economists have been working on this question ever since the 1950s and 1960s, and if you trace it back to Adam Smith, goes all the way back to 1776. Let’s start with some fundamental causes, some things that are big picture causes. If we think about what causes modern economic growth, one of the things that's clearly important is institutions; political institutions, social institutions, religious institutions. It turns out that different countries, with different institutions, have different levels of economic growth. Geography, where you are on planet Earth, matters. Are you landlocked? Are you near water transportation? Are you in the Northern Hemisphere? Are you in the Southern Hemisphere? What continent are you on? It turns out that that matters, a lot. And culture; religious culture, ethnic culture, every kind of culture that you can think of, it matters, because it affects the way people live their everyday lives and affects their decisions about how they're going to interact one with one another in a market economy.

Now, you know, a lot of these topics I could spend an hour just talking about them. Let's not zero in on this yet, though. Let's go one step deeper to what economists do because this is more the realm… although economists have encroached on all these things… these are more the realm of political science, of sociology, of geography. When he asks, “what do economists focus on?”, we focus on the following proximate, nearby causes. The first one is, we ask, what's happening to the number of people who are participating in the market economy, what economists call the participation rate? So if you think about the fraction of people who either have jobs or are looking for them, is that growing? If it is, that usually promotes economic growth in the standard sense of measured increases in GDP. The second thing we look at is the growth of resources for every one of those workers. How many tools do those workers have? How much land do they have available if they're working in agriculture or something like? What about their own resources in terms of what economists call human capital? Do they have sufficient levels of education? Do they have good health? The more you can get that improved, per worker, the faster your economy will grow and the richer your economy will be.

Finally, here's an example of how economists never come up with cool names for anything. ***audience laughter*** This should have some really fun name like supercalifragilisticexpialidocious, or something, but we call it total factor productivity. What it means is, how we use our resources. I like to think of this as recipes. We've got resources like physical capital, human capital, and natural resources. How do we put it together? How do we use it to produce goods and services?

Some combination of those three things leads to growth of per capita income. So that's the way I was trained and that's the way that I've looked at things as an economist and as an economic historian. When I saw Terry Fitzgerald's article in 2003, my first thought was, well, can we dig into Minnesota's history and understand how important are these factors in understanding Minnesota's growth over the last, roughly, 150 years? It turns out there's a really nice way to organize your thinking about this. It comes from an economist named Jeffrey Sachs. He said, if you look at economic growth since the 1500s, you see three patterns that keep showing up. And it isn't that you move from one to the other. It's that at different times, different of these patterns are dominant. He called them resource-based growth, catching-up growth, and endogenous growth.

And what I'm going to make a pitch for right now… this is a hypothesis as much as anything... is that to understand Minnesota's economic growth, especially since the 1920s, we're talking about a transition from a resource-based growth economy to a catching-up growth economy and that what we are experiencing now, since roughly the 1980s and 1990s, an economy that's been trying to make a transition to what's called an endogenous growth economy. And I'll explain this over the next few minutes.

So let's take a look at Minnesota's growth through the lens of these ideas. Let's look at resource-based growth and, of course, with resource-based growth, what's the first thing you think of probably, is agriculture. Right? Here's a picture…all these pictures are from the Minnesota Historical Society. This is harvesting wheat in the Red River Valley in 1885, I believe it is. So growing things on the land, raising animals, and then processing them was a basis for Minnesota's economy from its very beginnings. Forestry, cutting down trees, turning them eventually into lumber for construction projects. And, of course, in the latter part of the nineteenth century, mining, with the discovery of iron ore on the Cuyuna and then the Mesabi ranges. So what we're talking about, if we summarize all of this, is a process that works like this… you basically extract raw materials, right? You grow crops like wheat and, later, more corn, and even later, soybeans. You cut down and harvest the timber that's available. You dig up raw ore out of places and then you process it, but not very much. You just do some minimal processing. You might mill the wheat into flour. You'll take the Timber and saw it into lumber, but that's it. Take the raw ore, separate it out so that it's iron ore, but then that's it. Ship it off to somewhere else where it gets turned into something of higher value. That's basically Minnesota's economy from roughly the 1850s through the First World War. Now if we go back to the little diagram that I had a few minutes ago, what that means is, it relied on very rapid growth of the participation rate. Get lots of people coming here. Get lots of people moving here. Get lots of immigration. Have the people who are here have lots of babies and have big families 'cause we need lots of people to work. Get those natural resources gathered up and use as much of them as possible per worker. Get really big acreages in your farms. Get mines that are gigantic so that you can scoop this stuff out at really fast rates. Big swaths of Timber. And then, in terms of this technology, of total factor productivity, it's not so important. It's there. You adopt what's there. You tinker and you improve at the margins, but mostly you take what's on the shelf and use it. This is not an economy that's all about innovation. This is an economy about running as much resources through a given process as fast as you can. That's what leads to the growth of per capita income. So that is the story that I'm telling, at least, about this period of Minnesota's history. We get a resource boom, but then that formula stops working. And again, as I'm going to say a number of times, we could spend all night talking about that.

But what happens around 1910 or so is, first of all, you get a movement of the timber industry from the Midwest to the Pacific Northwest. So all of the sudden the timber and lumber industry starts to collapse and implode in Minnesota. Secondly, you get big changes in the milling industry. Minneapolis is the king. It's the crown jewel of the milling industry. But starting around 1910, Buffalo and Kansas City start to become rival milling centers and Minneapolis starts to slowly fade in comparison to those other two places. So now what? What is Minnesota going to do? Well, here's where we switch to catching-up growth being more dominant. And the theme here is, instead of just extracting these raw materials and processing them a little bit, what we're going to do is, we're going to take this stuff and we're going to add value to them. So here's our…probably the most famous Minnesotan of all-time, right? Someone who doesn't even exist. Sorry to burst your bubble if you didn't know that. ***audience laughter*** Uh, she's not real. Betty Crocker, right? What became General Mills Corporation pioneered the idea of not just milling flour and then sending it out, but let's create food products; Cheerios, Wheaties, Bisquick, pre-made cake mixes. We add value to that flower and sell it to customers at higher prices than we could ever have sold them before. Forest products; instead of just cutting down trees and turning it into Lumber, start doing things like make paper. Make paper and also develop a printing and publishing industry that uses Minnesota paper. Start factories that do things like make windows; Andersen, Marvin, doors, all kinds of things like that that use lumber products as the first step, but then instead of sending it out of the state, use it right here. And, of course, probably the most famous of all was the process developed at the University of Minnesota to turn what had been waste ore on the Iron Range into a high-grade iron product called taconite. So this is a picture of little pellets that you create when you create a taconite. You roll up this ore into little pellets using a process that basically involves baking things.

But that's not all. The other part of catching-up growth during this period consisted of manufacturing that was not connected to the local resources. That is, during this time of resource-based growth you created what I've come to call an economic ecosystem of people who grew up around these industries; small machine shops and mechanics, banks and financial institutions, draftsmen, whole businesses who were just devoted to drawing plans. They could be used in a variety of ways, not just in the flour milling or lumber milling or in the iron ore industry. For example, here's one of the most famous Industries to grow in Minneapolis in the 1910s and 1920s; the Minneapolis-Honeywell Regulator Company, more famously known as Honeywell. They developed a way of controlling the heat in a house by opening and closing the flue on a furnace. Now, in a way, that's a resource-based thing, right? We live in Minnesota. You want the house to be warm. You don't want it to be cold. But this isn't based on iron ore that's mined here. It's not based on flower that's milled here. It's not based on lumber that's been milled here. It's something new. It's taking advantage of the educational background of the people who have come to Minnesota, worked in these other industries and stayed here to do other things. 3M. 3M started out as Minnesota Mining and Manufacturing. The whole idea was, we're going to dig up the silica up here in Northeastern Minnesota and then turn it into sandpaper. Well it turned out that it wasn't silica. It was something else and they couldn't make sandpaper out of it. But they didn't stop. They turned their attention to focusing on the product itself, getting the materials from wherever they needed to, and eventually under the leadership of people like Archibald Bush and William McKnight, they created a consumer products and manufacturing products behemoth. Manufacturing, but it's not tied to the local resources. And, of course, probably the most famous one starting in the late 1940s, but especially in the 1950s and 1960s, was the computer industry. I always love telling this story to my students because they have never heard it. Most of them didn't know that before there was Silicon Valley, there was Minnesota. More people worked in the computer industry as a percentage of the workforce in Minnesota in the 1950s, 1960s and 1970s than any other state. Some of the most famous names are places like Honeywell. They already had experience in control systems. They moved into the idea of digitizing them. Plus, they were heavily involved in defense work. What eventually became the Univac Corporation grew out of an organization that came to St Paul, mostly because there was this big empty glider factory that a banker at the First National Bank of St. Paul new could be got for cheap, in fact, for free. Control Data which grew out of Sperry Univac. And, of course, in the late 1950s IBM located their first campus, outside of Schenectady and Upstate New York, in Rochester, Minnesota. They designed from scratch a campus to build computers.

So Minnesota became the center of the computer industry. So what did that involve? If we take that structural change that we just saw, again it involved rapid growth of the participation rate, but this time it was different. Instead of encouraging immigration, which had been cut off by the changes in 1924 that the federal government had instigated, this time it relied mostly on women, especially married women with children. That was a very important part of getting more people into the labor force and I’ll talk a bit more about this in a moment. Rapid growth, this time not of natural resources, but of physical capital and human capital. So more and better tools, better educated people, healthier people. And then here's where total factor productivity does start to show up. Turns out that adoption and improvement of best practice technologies is at the heart of understanding how Minnesota went from below average to above average. I'll talk a little bit more about that in a moment. Those three things together lead to the growth of per capita income, but this time not just for a short boom, but for an extended 40-year period.

And I think it's worth going into some details about this. So let's look at the period roughly from the 50s through the 2000s. What about the participation rate? Well I already mentioned married women with children was one of the most important factors. Minnesota, by the early 1960s, had the highest labor force participation rate for married women with children of any state in the country. Where were they working? They were working at places like Honeywell. They were working at places like Univac. They were working at Control Data. They were hiring as many women as they possibly could. The other source of growth was, attracting young people from the surrounding states. Minnesota was a net importer of people from North Dakota, South Dakota, Iowa and Wisconsin every year from the early 1950s through the late 1980s. we were just drawing them in like mad.

Human capital. Couple of really important points here. First of all, education grew faster than the national average; high school graduation rates, post-secondary attendance. One of the key factors in all of this, I think, was that in 1932 Governor Floyd B Olson proposed, and the legislature adopted, something that people at the time, who were opposed to it, said was going to wreck the state. They imposed an income tax. And the income tax was used to fund education so that the by the time the late 1940s and early 1950s rolled around, Minnesota had gone from the lower half of the country, in terms of high school graduation rates, to the top five in high school graduation rates and was breaking into the top 10 for the percentage of people who were attending post-secondary institutions, which were also funded, in part, by the income tax because community colleges and technical colleges were part of the local school districts and part of the funding. Human capital also includes health. And if you look at the record, Minnesota was a leader in public health. In particular, vaccination rates were higher Minnesota than almost anywhere else. Infant maternal mortality rates were relatively low. Medical care was widely available. One that, I think, is very important that I've always wanted to do more research on is dentistry. Turns out dentistry affects everything from heart health, to your vision, to your musculature. I never knew that ‘til I started looking into this. And Minnesota was one of the leaders in ensuring people, or excuse me, setting up dental insurance plans that said, we're going to get a check-up every six months.

Physical capital. I want to distinguish between two kinds here, private and public. Private capital was very important. Companies being able to borrow the funds to build new plants, to equip those plants, to build new buildings in general. I think it relied on something that was very important and I’d even say unique to Minneapolis-Saint Paul, in particular, and to Minnesota in general. We had very broad and very deep local financial institutions and financial markets. And in particular, in these local financial markets, people weren't looking for the highest rate of return no matter where it was. They were looking for the highest rate of return that would keep their money in the area. So, for example, a great story about this is Control Data. Basically, it was funded entirely by local issue of stock. In fact, it's a little bit, not illegal, but shady. One of the ways they were able to raise money was, they only sold stock to residents of Minnesota because that way they could avoid filing with the SEC. ***audience laughter*** But they knew they could do it because these financial markets existed and they could tap into them.

Public Capital was also very important. Two things that I think are especially noteworthy are, first of all, transportation. In particular, Minnesota was different than almost any state that I've been able to find in terms of setting up its road network starting in the 1920s. If you look at a map of Illinois or Wisconsin or Indiana, if you want to go that far east, Iowa, their Road systems are set up to converge on a major metropolitan area; Chicago, Des Moines, Madison, and Milwaukee in Wisconsin, Indianapolis in Indiana. The freeways did that in Minnesota, but if you look at the trunk highway network, which is what it was called, it was designed very differently. The legislature really got down into the details and said, we want people to be able to transport goods and services, for example, from Worthington to Thief River Falls without going to the Cities. Or go from Duluth to Fargo without going to the Cities. That was different than any other state in the Upper Midwest.

And finally, water and sewer systems. We were one of the first states in the country to have state funding of local water and sewer systems. This helped promote local manufacturing, manufacturing outside of the Twin Cities, because if you could get a grant from the state government or borrow at a zero-interest or a low-interest rate, you could set up a municipal water system, a sanitary sewer system, and attract businesses to your town. Think of Hutchinson, Minnesota. Think of Thief River Falls. Think of Rochester. This was where it really was done on a large scale to attract IBM.

I mentioned technologies and total factor productivity. I think one of the things that's really important about understanding Minnesota in this period was, we weren't so much a place where we invented new things, but we were really good at taking stuff that existed and improving it, making it a lot better. So, for example, Control Data, again, is an important part of the story. In computers, what they set out to do was, yes, they would build really advanced, really fast computers, but what they would make their money on was creating what were known as plug and play accessories for IBM computers. You want a disk drive for your IBM computer? Sure, you can buy it from IBM and they'll charge you an arm and a leg or you can buy one of ours and we'll sell it to you at a very low cost. You need a printer? Here's a printer. Plugs right into your IBM system at way lower cost and higher performance.

Medical devices. Yes, the cardiac pacemaker was invented at the University of Minnesota. Earl Bakken created this cart that you could wheel around and hook people up to. But the thing that really made Medtronic a lot of money was the implantable pacemaker. They didn't invent that. A doctor in Buffalo, New York invented it. But what they were really good at was they had a whole division of Medtronic that basically scoured the medical journals, looking for new innovations that they could go out and buy the patents for or, even in the case of cardiac pacemakers, they actually bought the doctor. Said why don't you take your practice and bring it to Minneapolis-St. Paul? He brought it there. They funded him. They invented, eventually, something that could be sold as an implantable cardiac pacemaker.

Finally, notice I haven't mentioned government much in here and I'll come back to this in a moment, but here I want to just highlight two things I think are important. First of all, if you read papers like the Minneapolis papers, the St. Paul papers, the Duluth papers in the 1950s, this phrase “big league” keeps coming up. Now you might think that applies to sports. Might apply to getting the Twins and the Vikings and things like that in the early 1960s and, of course, it did to some extent. But it also reflected a way of thinking that was different than before the Second World War. Before the Second World War, Minneapolis-St. Paul and Minnesota tended to compare themselves to their neighbors. How good is Minneapolis doing compared to Des Moines or Omaha, or maybe Milwaukee? After the war, our sights became set on saying, how is Minneapolis doing compared to San Francisco or Chicago or Boston or New York? That became the benchmark. We're not going to just compare ourselves to our neighbors, we're going to try and benchmark ourselves nationally.

The other thing that I think was really important that government did was it promoted public amenities; parks, trails, things that everybody could use rather than things that required a lot of money in order to participate in them. That's the story, I think, of this period from down here, where Minnesota was below-average and became above-average.

But now the question becomes, we're above average, how can we stay there? What are some lessons from this story? There are lots of them, but let me focus on three that I think are important. Lesson number one. I'll let you read it. ***audience laughter*** And no, this isn't Yogi Berra. ***audience laughter*** It's often attributed to him, but it's actually the physicist Niels Bohr. He was talking about the uncertainty principle in physics. It's very hard to predict, especially about the future. Well, he's right. Here's another page out of that booklet that I told you about earlier in the talk. In 1946 this commission that have been appointed by Governor Stassen had a whole bunch of recommendations and one of the things they said was that if Minnesota is ever going to get back on track again and become above-average, they got to fix the income tax. This sound familiar? Minnesota's income tax is one of the highest in the country. It substantially above income taxes in our competitive states. In fact, three of them have no income tax at all. And I have this guy here, you know, right, the government's taking everything from him and he's wearing a barrel. It's terrible! Well, we didn't fix any of that 'til 1967. We argued about all kinds of reforms to the income tax, and yet, the whole while, Minnesota is growing faster than the national average. So, I think, one lesson from history is, the obvious things that people in the moment say we have to do in order to promote economic growth, rarely are the answer.

Lesson number two. This isn't attributed to anybody. I made this up. Evolution is just as important as a revolution. It gets the headlines if you, pardon the expression, it's sexy to have new stuff, to come up with new Innovations and things that nobody's ever seen before. But when you look at economic history, in the long run what's really important is those incremental changes year after year, after year, after year that make things just a little bit better every few years, building on itself. Let me give you an example that I think's really important for Minnesota. I told you earlier about these computer companies. Well, as many of you in the room know, they're gone. Honeywell is here, but it's not a computer company. It got out of computers in the 1980s. Univac now exists as part of a company called Unisys that was created out of Univac and Burroughs Adding Machine Company and a whole bunch of other companies that were kind of smashed together in the 1980s. Control Data disappeared in the 1980s and 1990s. IBM's still around, but IBM, for the most part, doesn't produce computers anymore. They produce computer services.

Yet, Minnesota did not fall below average again when these companies disappeared. Why? To me that's a really important question to ask. Here's my hypothesis. They evolved. In particular, the human capital. The people who worked at these places and the knowledge they possessed stayed here. The people who were writing software at Control Data and IBM and Univac started writing software to manage inventory systems for Target, one of the first companies to create company-wide computerized inventories. They helped found Best Buy which took that same idea into the special area of retailing for electronics. They moved into medical devices. One of the books that I think's really important on all this is called Digital State by a U of M scholar called Thomas Misa. When Control Data started going belly-up, in his chapter on this, he said that Medtronic basically had an open door and hired every person they could possibly get from Control Data to join them ‘cuase they knew that they knew how to write the software, they knew how to run the hardware, and they didn't hardly have to train them at all. And then one that I think gets ignored a lot, but it's really important in today's economy, is logistics. How do you move things from one part of the country to the other or from one part of the world to the other? It involves using computers, mathematical algorithms and all the stuff that originally was seeded in companies like Honeywell, Control Data, Univac and IBM. In other words, the human capital stayed here, even when the physical capital of these companies disappeared. And that was very different than other places. For example, the same phenomenon happened along Route 128 in the western part of Boston. Their computer industry started to implode in the 1980s as personal computers took over for big computers. They didn't stay. The people didn't stay in Boston and create new companies. People in Minnesota did.

Lesson number three. And I think this is the most important one. Invest in people, not Industries. The big reason, I think, that lesson number two came about and the reason why we could go from a resource-based economy to a catching-up economy and now to an endogenous economy that's generating ideas from within, is that, rather than putting our money on a particular industry like automobiles or computers or you name it and kind of chasing whatever the latest fad is, we put our money in our people so that those people, as opportunities came along, could take advantage of them. This was as true in the 1950s when one of the reasons why Univac allocated its major facility here, not in Philadelphia where it started, but in St Paul was because of an educated workforce that was connected with institutions like the University of Minnesota.

Let me get a little personal about it, though, in concluding here. Here's a picture. This is 35 years ago. That's me. That's also about 60 pounds ago. ***audience laughter*** Life is that way. On the right is my grandfather, Dorrance Johnston. He graduated from University of Minnesota in 1931…electrical engineering. He was never an electrical engineer. He went back to Warroad, Minnesota, developed businesses in mink ranching and commercial fishing. But I remember asking him as kind of an impetuous, stupid 14-15 year-old…well grandpa, you never got to use your college education. And he set me straight pretty quick. He said “I use it every day. I have used it every single day of my life since I graduated”. He had that human capital. My dad, who's here tonight, graduated from the University Minnesota in 1955 with a degree in chemistry. I don't remember, dad, how long you were a chemist, but not very long. ***audience laughter*** But you had the human capital. He had the human capital, the knowledge that accumulated being a college educated person. Yeah, that guy graduated. We don’t know what happened to him. Here are my two brothers. They graduated from the University of Minnesota, as well. My brother, Christopher, has a degree in mechanical engineering, works as a consultant, but his really big thing right now is he's going to publish his first novel. Similarly, my brother, Mark, majored in English and Spanish, but he spent his whole life doing management information systems. And not to leave out other people. My sister isn't in any of these pictures. She didn't come to my graduation. I've never asked why. ***audience laughter*** I should ask. But, anyway, she also graduated from the University Minnesota with a degree in biology. My wife, Susan, graduated from the University Minnesota and my mother got her MBA.

This state invested in its people. It made it possible for all of us to do the things that we've been able to do over the last 70 years, not only at the University of Minnesota at the public school level, but in private schools, too. How many of the students in this room got a Minnesota state grant? The state of Minnesota invests in its private colleges, too, by making it possible for Minnesotan's to attend places like St. Ben's and St. John's. That's how we became like Wendy Anderson on the cover of Time Magazine. That's how we were able to live the good life in Minnesota. And I think those are the lessons that we should draw. Thank you very much.
audience applause

Thank you. Now comes the fun part, at least for me. There are microphones down here in front and if you want to ask a question, why don't you come up to one of those mics. It isn't because we're being pretentious and want you to be in the spotlight, but we are taping this and we'd like to be able to get your question. So if you have a question you'd like to ask, come up to the microphones here and ask it. The lights are coming on so you won't trip on yourself. So nobody wants to ask a question? Oh, I see some people starting to get up so I'll give them some time. I'll keep my clicker so that I can go back to a picture if I have to. You're first.

Audience question:
Thank you. That was very good. I'm wondering what you see as the biggest threat to the good life in Minnesota.

Dr. Louis Johnston:
So I'll repeat the question just to make sure everybody heard it in case the microphone's not picking it up. What do I see is the greatest threat to the good life in Minnesota? Well, again, what time is it? how much time do I have? I think the biggest threat right now is the idea that we can get something for nothing. And what I mean by that is that…and I'm not saying this by political party, this is true of both parties…that you can get better educational outcomes without investing more resources or that you can invest more in infrastructure without taking away from something else. I just feel like people have lost the sense that we're going to have to make tradeoffs in order to do this and that, to me, is the fundamental threat to the good life, that we don't realize, that if we're going to keep this up…I'll go back a little bit here. This isn't preordained. I think we've gotten complacent with the idea that, well, course we're above average. We've always been above average. No. We had to work hard at it. We had to invest a lot of resources in it and to act as if we can just coast, maybe even spend less on what we do and everything will be the same, is wrong. A ringer over here to ask a question.

Audience question
Louis, you started answering the question that I'm going to ask and that is we've been cutting back on the percentage of the University of Minnesota and MNSCU and the entire education system in the state and how long before we start paying the price for the cutbacks that we've made in the last 10-15 years.

Dr. Louis Johnston:

Well, remember lesson number one? It's very hard to predict, especially… ***audience laughter*** But seriously, to your answer your question, I am worried about that. I'm worried about that on a number of dimensions. The first dimension is just kind of at the aggregate macro-level that we won't be able to keep our graduation rates as high as they are. We won't be able to keep our post-secondary attendance rates as high as we are just because the money's not there. But at the micro-level, I'm also incredibly worried about the fact that we're wasting huge amounts of talent in Minnesota. Usually is known as things like the opportunity gaps. We have thousands of young people who aren't graduating from high school who could be joining all of these new Industries and, in fact, creating new industries of their own. We're missing the boat on that. We have thousands of people every year who graduate from high school but don't go on to any secondary education, post-secondary education. Why? Part of it 'cause we're not spending the money that we need to make sure that those people know about it, that it's easy. so that's my answer is I don't know when we're going to start seeing the engine seize up, but I think we will if we're not careful. Another ringer.

Audience question:
my question is, is Minnesota's tale of economic growth just a tale of Minneapolis and St. Paul and how have the rural areas in Minnesota faired during this period of income growth relative to rural areas of, say, my home state of Wisconsin or The Dakotas?

Dr. Louis Johnston:
so you can you can testify that I did not plant that question with you, right? ***audience laughter*** That's a great…I'm so glad you asked that question. It turns out that it is not just the story of Minneapolis-Saint Paul. If you look at the ratio of income in rural areas to urban areas, that has pretty much stayed the same since the 1950s, meaning, that as the urban areas grew, so did the rural areas. And I think part of that is because of the way the Investments were done, especially things…I mentioned the water and sewer systems is a great example…you didn't have to locate all of your manufacturing capacity in the Twin Cities. Companies like Polaris could expand in places like Roseau, Minnesota. Arctic Cat could do the same thing in Thief River Falls. Control Data could set up plants in areas all over the state because the amenities that were necessary to do that were there. So no. It isn't just a story of Minneapolis and St. Paul, it's a story of…probably, I like trains, you know this…it's the locomotive for the state, but it didn't just leave the rest of the state behind, it pulled the rest of the state along with it.

Audience question:
If one of the inputs is population growth or more participation, and in the first phase that was immigrants or people coming to Minnesota, the second phase was taking people here that are already not participating, but getting them engaged, such as women and others, where do you foresee that part being in the future, because it has to be there, it's an integral part of the equation?

Dr. Louis Johnston:
I see it in two places. Number one, I think immigration is coming back and tied to that is we need to do a much better job educating children of color. So, for example, my kids have gone…

well, they’re graduated now, but they went through the St. Cloud public schools. Large number of immigrant kids, especially Somali kids, they're not graduating at the same rate. Why? We need to do something about that because that's the answer to your question. That's where those future workers, future scientists, future idea people…they're going to be coming out of there and we're not making sure that that resource is continuing to come. That and then, as I said, immigration in general I think it's a really useful Source. It’s a really important Source. I was looking at some maps a couple of months ago. If you look at the population of the Cedar Riverside area in Minneapolis right now, it's about 40% Somali. If you look at the same area in 1910, it's 40% Norwegian. ***audience laughter*** We need to basically do the same thing that we did a hundred years ago, again. We need to bring them into the community, make sure they're graduating, make sure they're getting educated and then set them loose.

Audience question:
when I came up here my question was kind of stolen so I came up with a new one. Is your graph of per capita income taking into account cost of living in Minnesota as compared to other places?

Dr. Louis Johnston:
So make sure of everybody heard the question…does the graph take into account cost of living? In the strictest sense, no. What it simply is, is the ratio of nominal, that is non-inflation adjusted income per capita in Minnesota relative to income per capita nominal in the rest of the country. So that is a problem. What's nice, though, is that over the last 10 years, the Bureau of Economic Analysis has actually developed real data at this level. The pattern looks pretty much the same. It also, even though you didn't ask this, but I get this asked to me a lot at talks that I give out in the community…yeah but taxes in Minnesota are really high. What if you take taxes out? That doesn't change it either. When you net out the taxes and look at net income per capita the patterns are just the same as they were before, both for Minnesota itself and for the surrounding states.

Audience question:
Louis, I'm going to ask the immigration question in a little bit different way. Up until the 1920s we pretty much had an open door. The door slamed shut. Then in 1965, we opened the door a little bit and immigration increased. We're now in a period where we have an aging population, but we're about to slam the door shut again. So I'm wondering if you have any insight on, not just educating the immigration population we have here, but how we deal with the aging population issue.

Dr. Louis Johnston:
Again, how much time, how much time do I have? Well, first of all, I think that dealing with the aging population issue is really important. I wish Chris Farrell was here. I'm used to having him to be able to pass a question off, like this, because his argument is that we have to change the whole notion of retirement. But there is no such thing as working, not working, working, retired, but there's a transition that you go through. He actually calls at unretirement. It’s this period from working until you actually stopped working. It's this unretirement and then you have retirement. I

think we need to start thinking about that as a public policy idea. How can we encourage that? How can we use the tax code, for example, to encourage people who are working part-time in order to keep getting their social security benefits and not withdraw from a labor force just because they're now hitting their limit or something like that. I was thinking about the immigrant part of your question a little bit, too, because I forgot to mention this in the body of my talk. There's a lot of alums here. I counted the other day that there are 13 students who have done senior research projects that contributed to this and I thank you publicly for all the work that you did. One of the ones that a student is working on, actually, right now is he's looking at what's been the economic effect of Vietnamese immigration since 1975. How has it affected wages? How has it affected the labor market? And I think we really need to ask that question and we don't have good studies on it yet. We have a little bit here and there, but we need to really think about that. So it’s not a great answer to your question, but those are my thoughts.

Audience question:
Yes, you talked about the businesses in Minnesota and how it’s been more about evolution than revolution, but as time’s gone on, some of the businesses you mentioned have been having some trouble recently. Best Buy has tried to switch more to cell phones and that sort of thing, but their Best Buy mobile stores, they’ve also scaled back or closed. Target is facing stiff competition from Walmart and now the next evolution of that almost Amazon, in the sense that, the way they’re able to get product to people. And General Mills is also struggling right now as people’s tastes are changing in terms of what they want to eat and what they want to consume. So, I guess, the way things are changing, it’s moving more toward revolutions on the macro scale. So I’m wondering how these evolutions, if we just stick with tiny evolutions, if these companies are going to be able keep up with everything that’s changing and how that’s going to affect, really, the workforce in Minnesota.

Dr. Louis Johnston:
Boy, there’s like four questions in there, but I'll do my best. I think that's where economic history is really powerful as a public policy tool and underutilized. So, for example, if you look at the Fortune 500 companies that were located in Minnesota in 1955, I think only one of them is still on the Fortune 500 and that's General Mills. One of the biggest ones, I think it was the fifth biggest, was the Ontario and Minnesota Paper Company. Long gone. My point is, is that, I think you're right about the revolutionary part, but revolutions are actually made up of lots of little evolutions and so the General Mills of 1955, the General Mills of 1885 and the General Mills of 2025 may have the same name, but they're not going to be the same company. For example, the new, I think she's either the heir apparent or she's been installed as the CEO, was the head of Annie's, the organic food company that General Mills bought a few years ago. And the way I look at it is, they basically realized packaged food is dying in its present form. We need to get the organic market, the non-GMO Market. Instead of trying to do it ourselves, let's go buy a company that already knows how to do it and splice their DNA into us. So even though it's revolutionary, I think, in its outcome, it still looks like you're just kind of going along. The Best Buy one, I laughed when you mentioned it because Dan mentioned I've written about 105 columns for Minnpost. And one of them, which still gets read every once in a while, was Target Should Buy Best Buy. I still get people reading that every week and I still actually think that

would have been a really good idea. That would have been a way for Target to evolve, basically, to have that in there. And I still think that might be the way that Best Buy ends up. That they end up not being a standalone company, but they get bought by, maybe, Amazon or something like that.

Audience question:
Thanks. I guess my question relates to sustainability and what appears to be an anomaly, if I remember my data right, but I think Minnesota has one of the lowest number of new business startups as compared to other states, however if you start a business here, you're likely to survive ‘cause we have one of the highest rates of survivorship. Is that an anomaly or I was wondering if you might comment on that?

Dr. Louis Johnston:
Well, I don’t know if it’s an anomaly, but it's something that I don't think’s really well understood. A lot of people who do business development say you got to have lots of new startups and you got to have a lot of entrepreneurship. Well, I was thinking about that a few years ago when one of our Clemens lecturers came, and I can't remember which one it was. He was looking at Latin America and he put up a graph on the screen and he showed rates of new business start-up and rates of single-owner entrepreneurship are highest in the poorest countries. The reason why you get lots of entrepreneurship and lots of startups in poor countries is, that's basically the only way you can make a buck. So it's not a problem that in Minnesota we've got a relatively low rate, because we've got stable corporations that people can work in. But here's the other side of it. I think we do, in Minnesota, need to develop what I like to think of as a Skunk Works mentality more. That is, coming back where the gentleman went, Best Buy or Target…I hope that somewhere they've got some people that aren't in Minneapolis - St. Paul that are thinking about a totally different way of doing retailing. We don't do that enough. We tend to have more of a vertical, bureaucratized way of doing things too much. And so I'd like to see more of that in our companies. I don’t know if that gets at your question, but I hope so.

Audience question:
This is more of a comment than it is a question, but I hope I'm not sounding like a braggadocio, but I wanted to say a little bit about my relationship with Wendy Anderson. After I got a master's degree in Denver in 64, I went to work for State Human Services in Saint Paul that same year. One of the things that was part of my responsibility, I was a director of the Foster Care Program in the state of Minnesota and every year we recognize these people who came to the Governor's office and, you know, they were just treated very well. Their pictures were all taken. And I can remember one picture, it was just the governor and me, and I showed it to my mother, but she wasn't terribly impressed.
Dr. Louis Johnston:
You weren’t a fish. ***audience laughter***

Dr. Louis Johnston:
you know, I think, building off your comment, I think people matter. And one of the things that I think’s really interesting about the Minnesota experience, as well, is that, notice, I haven't

mentioned democratic or republican in my talk and that's partly on purpose, but it's also because, if you look at the policies that we've been talking about and the questions being asked about, they tended to be followed regardless of what party was in power, right. The Minnesota Resources Commission was started and nurtured under Republican governors. Republican plans for trunk highways were nurtured under Democratic governors like Orville Freeman and Karl Rolvaag. Switching parties didn't matter very much. It mattered a little bit at the edges, in terms of a little bit higher taxes or a little bit lower taxes, or a little bit more emphasis on rural areas versus a little less emphasis on urban areas, but the direction stayed the same. Now, there was one break. I don't know if anybody wants to guess. 2003 we elected a governor who had a very different perspective and if I had had the annual data here, one of the things that shows up really clearly is that things are going pretty good and then starting 2004..5..6..7, this starts to go down. it's only in 2011/2012 that the trend reverses and we're back to where we were. I'm not attributing that to a Democrat vs Republican. I'm attributing it to a very different way of thinking about policy. The Pawlenty Administration came in convinced that taxes were everything. High taxes are bad. Low taxes are good. Cutting government back is good. Having big government is bad. I don't see that. I don't see it in the data and I don't see it in economic performance, neither for Minnesota, nor across states. There just is no correlation that strongly stands out from the data between levels of taxes and economic growth. There are states that grow fast that have high taxes and states that grow fast that have low taxes. There are states that grow fast with big government and ones that have small government. That doesn't seem to be what matters. It's what the government is doing.

Now I lost track of which side I was on. I think over here.

Audience question:
So my question was, you stated that in your presentation that the investment of people was one of the reasons why Minnesota was above average. Here in Saint Cloud, where so many immigrants and so many students are graduating at a lesser rate than their counterparts, are they being invested in as much as anybody else or is there other factors contributing to the lower graduation rates?

Dr. Louis Johnston:
Well, let me answer your question directly. I don't know ‘cause I'm not an expert on St. Cloud, but my anecdotal evidence is that's not happening. They're not getting invested in and I think it's terrible. I think it's a waste of human potential and of what this state could be. You know, there are all these people who could come up with new ideas, who could invent the next…or come up with the next company. And I got to be careful not to get too mad, but it just really makes me very angry because it's terrible. It's the wrong thing to do. It's not Minnesotan.

Audience question:
I have a similar question to that. We talked about the Somali population and the Vietnamese population. As a child of a Vietnamese immigrant, it’s been my experience that the high school graduation rate was fairly high for the Vietnamese population. I wonder what differences are

being made for the Somali population and if the post-secondary participation and marketplace participation of those graduates is different.

Dr. Louis Johnston:
It is. The short answer your question is, yes, it is very different. the Vietnamese immigrant population graduation rates of first-generation are significantly higher than they are for Somali. what's interesting, though, is the Somali population's graduation rates look a lot like the Hmong population graduation rates and that leads me to think that…the gentleman already sat down…but there's something different about the investment we're doing. Why is it that those graduation rates are so different? One of the things that one of my student's senior research project suggested a few years ago…we were looking at some of the places where people settled…is in Somali and Hmong communities they tended to concentrate so it would have affect an entire School area. And so in order to get the graduation rates up, you'd have to put tremendous amounts of resources to get everybody graduating, whereas the Vietnamese population settled out in a more spread out way throughout Minnesota so you could actually target programs easier to make sure that they graduated. That's just a hypothesis. I don't actually have an answer.

Dr. Louis Johnston:
Oh, this is bad. A colleague. A colleague is going to ask a question. ***audience laughter***

Audience question:
I wanted to ask…and I think a number of people have already talked about the demography and how Minnesota is predominantly…it's a majority white state, even now, but of course those rates are changing, probably faster. So Minnesota does have one of the highest, or probably the highest, achievement gap. Again, it is not only above-average, it's right about at the top. And the other thing that I…and this is more…you did point out that a lot of that catching up had happened because married women with children were participating in the labor force in large numbers, and that was just because of, you know, my personal interest I was interested. But right now, Minnesota also is a state with about the highest daycare costs and I see that, in terms of women, as well as racial minorities, and them being kind of, again, in terms of wasted resources, I was wondering if you knew, just in terms of drawing more women in the labor force, what were some of the factors which enabled that during the 50s?

Dr. Louis Johnston:
Sure. So why did married women with children have high participation rates in Minnesota would be a narrow part of your really good question. So big part of it…I haven't studied this extensively, but looking somewhat at the sociology literature a little bit…I'm only laughing because it has to do with the fact that we had relatively big families and so, in some cases, it was the older kids could take care of younger kids which made it easier for women with kids to go to work. The other was that Minnesotans…I'm laugh again 'cause it's the phrase…Minnesotans tend to home like pigeons. We go back to where we started and so you have family networks, grandparents, aunts and uncles who can take care of kids in a way that wasn't true necessarily in other states. So those seem to be two of the big factors, is just the fact

of family structure being different. But that, off the top of my head, that would be it. The other thing you mentioned, though, is about the resources. I'm really excited and I've been an advocate for a while of an idea called full-service schools. The idea is that a school shouldn't just have kids come at seven in the morning and leave at three in the afternoon. They should, in a sense, be community centers that operate from, maybe, five in the morning until midnight and provide social services, medical care, child care, and pre-K and during the day, child care. They should be places where we can, in a sense, grow the next generation collectively. I know that sounds…some people won't like that word, Collective. But I mean, as a community, we can do that.

Audience question:

A lot of Minnesota has Scandinavian roots, right?

Dr. Louis Johnston:

Exactly. I think it does.

Audience question:

Louis, if you could go back to the cover of Time Magazine in 1973…I don't have to physically…what role did the so-called Minnesota Miracle play in the conception of that story, which I believe is simply defined as a stronger State role in correcting the fiscal disparities among school districts. To what extent is the Minnesota Miracle still in place, from a governance standpoint, in this state?

Dr. Louis Johnston:

Okay. Well, let me break apart your question. So what was the Minnesota Miracle? A lot of you might be wondering what we've been talking about. The Minnesota Miracle was a set of legislation that was passed in 1973 under Governor Anderson and, actually, he ran on this as part of his platform when he ran for governor in 1970. He argued that what the state ought to do is increase the income tax and then use the proceeds of that income tax to equalize funding across school districts in Minnesota. So local areas could reduce their dependence on local property taxes, but still have high quality schools. In a sense, it was an extension of the idea that had started in the 1930s of imposing an income tax and then using it to fund education. I think it was really important. I lost where you were…there you are. I think it was really important, and in particular, I think it was really important in keeping the wave going. That is, we had this growth that was bringing us above average in the 50s and 60s. An obvious question, at least to me, to ask is why didn't it just stop right there? Why didn't we kind of just stay at the average? How is it that we got above? I think schooling and human capital and the role of the Minnesota Miracle kept us doing that. And that's what we've lost sight of. That's, actually, one of the first questions that was asked. We're not putting the resources in to make sure that those educational disparities across the state are being dealt with.

Dan Finn:

Well, tonight we have seen some really good historical research, effective analysis and good communication. We've seen here an excellent teacher. Please thank him for us. ***audience applause***

Dr. Louis Johnston:
Thank you. Thank you very much. ***audience applause***