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Appropriations Committee
March 19, 2013

[LB114 LB184]

The Committee on Appropriations met at 1:30 p.m. on Tuesday, March 19, 2013, in Room 1524 of the State Capitol, Lincoln, Nebraska, for the purpose of conducting a public hearing on LB114 and LB184. Senators present: Heath Mello, Chairperson; John Harms, Vice Chairperson; Kate Bolz; Danielle Conrad; Bill Kintner; Tyson Larson; John Nelson; Jeremy Nordquist; and John Wightman. Senators absent: None.

SENATOR MELLO: Good afternoon and welcome to the Appropriations Committee. My name is Heath Mello. I'm a state senator from District 5, representing south Omaha, and am Chair of the Appropriations Committee. I'd like to start off the day by having senators do self-introductions, starting with Senator Kintner.

SENATOR KINTNER: Hi. I'm Bill Kintner from Legislative District 2 and that's south Sarpy, Cass County, and a little bit of Nebraska City.

SENATOR MELLO: Sitting next to Senator Kintner is Senator Jeremy Nordquist representing the 7th Legislative District that encompasses downtown and south Omaha.

SENATOR NELSON: John Nelson, District 6, central Omaha.

SENATOR HARMS: John Harms, 48th District, Scottsbluff.

SENATOR WIGHTMAN: John Wightman, District 36.

SENATOR MELLO: Sitting next to Senator Wightman, as she is walking in, is Senator Danielle Conrad representing the 46th Legislative District in north Lincoln.

SENATOR BOLZ: Senator Kate Bolz, proud to represent District 29, south-central Lincoln.

SENATOR MELLO: And sitting next to Senator Bolz is Senator Tyson Larson, representing the 40th Legislative District in north-central and northeast Nebraska. Assisting the committee today is our committee clerk, Anthony Circo, and Jacob Fricke, who is a junior at Nebraska Wesleyan and is our page for the day. Looks like we have a new page as well. Sitting to my right, your left, is Kathy Tenopir, who will be our fiscal analyst for the afternoon. In the corner of the room you will see some yellow forms. If you're planning on testifying today, please fill out that form in its entirety. It helps us keep an accurate record of the day's public hearing. When you come up and testify, please give Anthony the yellow sheet. And when you sit down, please tell us who you are and spell your first and last name for the public record. If you do have any handouts, please give them to the page before you begin. We ask that you have 11 copies. If you do not have 11 copies, the page will make additional copies for the committee. If you're

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here today and you're not planning to testify but you want to be on the record as having been here, there's a white sheet on the back table. We ask that you sign in on that sheet, tell us your name and address, the bill number, and if you are here in support or opposition. We will hear bill testimony in the following order: first, the introducer of the bill, followed by supporters, those in opposition, neutral testimony, and ending with a closing statement by the introducer. We will be using a five-minute light system today. There are lights at the front of the table. When you start, the light will turn green. When the yellow light comes on, that is your one-minute warning. And when the red light comes on, we ask that you wrap up with your final thoughts. At this time I'd ask all of us, including senators, to please check our cell phones and make sure that they are on the silent or vibrate mode. And with that, at this time we will begin today's hearing with LB114 by Senator Burke Harr.

SENATOR HARR: (Exhibits 1 and 2) Thank you, Chairman Mello, members of the Appropriations Committee. For the record, the other page is Nate Funk. And my name is Burke Harr, H-a-r-r. I am from Legislative 8, which is located in central Omaha, the Dundee/Benson neighborhoods and the neighborhood surrounding Creighton Prep. LB114 appropriates a little over a quarter million dollars from the General Fund for fiscal year 2013 and '14 to the University of Nebraska Medical Center College of Public Health to continue research related to LR249. And I just wanted to let you know we passed around earlier an amendment. Originally there was a drafting error on my behalf, and we did not have it going to UNMC but, rather, to UNO. But I would ask that we...if you do choose to pass this, you put the amendment on. LR249 was a legislative resolution regarding drinking and driving. It seems every legislative session the Nebraska Legislature considers legislation--a couple of Ls--to address the problems of drinking and driving. However, this Legislature last conducted a comprehensive study on drinking and driving in 1991, which was then LR84. That was authored by the Transportation and Telecommunications Committee. It didn't really look at what we're looking at. And what LR84 did, well, the goal of LR84 was not to look at the effectiveness of the laws but to examine Nebraska's problems with DUI and how they compare to other states. It was more of a survey. The Judiciary Committee completed LR249 last session, which was a comprehensive review of the Nebraska's current statutes and policies regarding drinking and driving. The study examined the cost and prevalence of alcohol-impaired driving, evaluated how Nebraska is addressing the problem, compared their efforts to other states, and provided suggestions to reduce drinking and driving and recidivism. So what it tried to do was really look at two things. Number one, how do we stop people from drinking and driving? And then, if you have been caught, how do we stop you from doing it again? What are the preventions? Obviously, we didn't get you the first time. So do we need to do things a little differently? Do we need to be a little harsher, or is it that you need alcohol treatment? What works best? LR249 recommended the Nebraska Legislature task the University of Nebraska Medical Center College of Public Health with research in this area. LR249, which you have a copy in front of you, recommended the research should focus on how Nebraska

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is addressing the problem of impaired driving and what Nebraska can do to improve their efforts. It recommended research be conducted in best practices from other states and how those best practices can be implemented to improve Nebraska's policies. Current Nebraska law does not allow drivers arrested before January 1, 2012, who have had their license revoked, to be eligible for an ignition interlock device. It is important for this population to attend drug and alcohol classes, pick up their children, and be able to make it to work. They are currently excluded from that. People need this transportation to retain and maintain a normal and productive life. LR249 recommended research in this area to improve this issue in the law. LB114 follows the recommendation from LR249, tasking UNMC with the research. And I ask that you vote this out of committee. One interesting aspect that came out of this was that we saw...there have been 134 revisions to the DUI law since 1991, and there has been no evaluation of what works and what doesn't work and what can we do better. And I think that's important because maybe it is stricter sentences, maybe it's requiring treatment. Some states, and you'll see the variation on DUI first in this resolution or, yeah, LR249. Some states don't suspend your license at all, but you can't get your license back until you've completed drug and alcohol treatment. And so we need to see how effective that is. We need to see what works. And so that's kind of the general idea behind this bill. I would entertain any questions you may have. [LB114]

SENATOR MELLO: Thank you, Senator Harr. Are there any questions from the committee? Senator Kintner. [LB114]

SENATOR KINTNER: Oh, hi. Thanks for coming. It sounds like a great idea to study it. I can't argue with that. Is this additional money? Has this study been ongoing, they need additional money to study? So they haven't done any study at all yet? [LB114]

SENATOR HARR: No, we have never done a study on what the effectiveness of the laws we currently have and what are the best practices out there. [LB114]

SENATOR KINTNER: Well, Mr. Chairman over here advised me not to say "crap load," as in crap load of money. So it's just...well, I said that once and got quoted. But so let me just say I think this is an excessively large amount of money. How did you arrive at this amount of money? [LB114]

SENATOR HARR: And we'll have an individual from...a doctor from UNMC following,... [LB114]

SENATOR KINTNER: Okay. [LB114]

SENATOR HARR: ...and he'll be able to answer that question better than I could. [LB114]

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SENATOR KINTNER: And it would seem to me that I could probably get a statistics class, a junior-level statistics class at UNL, and give them \$25,000 and all the beer they could drink and, within a year, I think we would probably have a pretty good study and a picture of what's going on. [LB114]

SENATOR HARR: Well,... [LB114]

SENATOR KINTNER: So, you know, I just think the government, whenever they do a study, they get taken to the cleaners. [LB114]

SENATOR HARR: Yeah. [LB114]

SENATOR KINTNER: Government money, taxpayer money, let's slam it to them. And I just think this is a lot of money. [LB114]

SENATOR HARR: Yeah. [LB114]

SENATOR KINTNER: So if you can't address that, I'll certainly ask that question later along. [LB114]

SENATOR HARR: Yeah, and I think they can address it better than I can. But I think part of it is we want to do a thorough, more than just a survey, of what all the other states are. That's what LR249 is, merely a survey of what other states have done. The question is how do you dig down into those numbers and really look at...there's some model language out there. And Illinois does it and South Dakota have adopted model language and, yet, their recidivism rates are completely different. Well, why is that? And so I think that's what they're going to really look at and examine. [LB114]

SENATOR KINTNER: Well, I think it's a great idea to study. I mean, I really do. But that's a lot of money. [LB114]

SENATOR HARR: The note might be too much, yeah. [LB114]

SENATOR KINTNER: All right, thanks. Appreciate it. [LB114]

SENATOR HARR: Thank you. [LB114]

SENATOR MELLO: Senator Nelson. [LB114]

SENATOR NELSON: Thank you, Senator. Thank you, Senator Harr. This is an additional appropriation. So was there an appropriation previously to public affairs at UNO? [LB114]

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SENATOR HARR: Not to my knowledge, no. [LB114]

SENATOR NELSON: Okay, so we're just picking up from the resolution and implementing that is what we're doing. [LB114]

SENATOR HARR: Yes. [LB114]

SENATOR NELSON: Okay. [LB114]

SENATOR HARR: That is correct. [LB114]

SENATOR NELSON: Okay, thank you. [LB114]

SENATOR MELLO: I have one question, Senator Harr, and maybe it's something that's in the report from the Judiciary Committee. Was the Legislature's Research Office involved at all in trying to do extensive research of what other states have done? Or was it simply just a Judiciary Committee staff that kind of led the effort and just kind of did some of the statutory research? [LB114]

SENATOR HARR: It was...actually, it was Legislative Research Office along with Judiciary Committee and my LA,... [LB114]

SENATOR MELLO: Okay. [LB114]

SENATOR HARR: ...who kind of spearheaded the report, Mr. Hale, but it was the three offices combined. [LB114]

SENATOR MELLO: Okay. Okay, thank you. Seeing no further questions, thank you, Senator Harr. [LB114]

SENATOR HARR: Thank you. [LB114]

SENATOR MELLO: We will first take proponents of LB114. Seeing none, we'll take opponents to LB114. Seeing none, is there any testifiers here in the neutral capacity? [LB114]

FERNANDO WILSON: (Exhibits 3 and 4) Well, thank you, committee Chair and committee members, for allowing me this opportunity to testify about LB114. I am Fernando Wilson, F-e-r-n-a-n-d-o W-i-l-s-o-n, a faculty member at the UNMC College of Public Health. I was invited to testify on behalf of LB114, which proposes to appropriate \$228,706 from the General Fund for fiscal year 2013-14 for the University of Nebraska Medical Center, College of Public Health in order to continue research related to LR249. I am here speaking on behalf of myself. The UNMC Center for Health Policy contributed

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to the final report from the interim study carried out through LR249 and published a policy brief that outlined impaired-driving policies in Nebraska. Based on our contributions to policy research and impaired driving, we were asked by Senator Burke Harr to write a research proposal that would focus on evaluating Nebraska's policy efforts to reduce impaired driving and also to describe best practices that would be considered to improve policy efforts to reduce impaired driving in Nebraska. Our plan is to carry out a rigorous evaluation of primary, secondary, and tertiary DUI prevention efforts using a variety of existing data sources. After we perform a meta-analysis of the scholarly literature and legal mapping of DUI policies in Nebraska, we plan to use advanced statistical models to analyze a comparative effectiveness of policies in reducing the prevalence of DUI and also determine the cost-effectiveness of those policies. Then we will compare the costs of enforcing the policies relative to the reductions in DUI. We will be partnering with the UNL Public Policy Center to assist with legal analyses. The deliverables will include original research reports and a summary policy report that outlines best practices and policies that will reduce the prevalence of DUI in Nebraska. Thank you for this opportunity and I would be happy to entertain questions. [LB114]

SENATOR MELLO: Thank you, Dr. Wilson. Are there any questions from the committee? Senator Harms. [LB114]

SENATOR HARMS: Thank you, Senator Mello. Dr. Wilson, thank you very much for coming forward. [LB114]

FERNANDO WILSON: Thank you. [LB114]

SENATOR HARMS: Could you explain to me just a little bit about this model that you handed out? [LB114]

FERNANDO WILSON: Yes. [LB114]

SENATOR HARMS: Man, there's a lot of arrows through that. What does that actually mean? [LB114]

FERNANDO WILSON: Well, those are types of factors that we would examine in the course of evaluating DUI policies, for instance. Primary prevention efforts are factors which relate to why an individual would essentially engage in drunk driving, why would they drive after consuming alcohol. Secondary prevention efforts, in the middle of the figure, are factors which determine, you know, how...what are some of the factors that determine how likely you are to catch alcohol-impaired drivers once they made the decision to drive while impaired. And tertiary prevention factors, on the right-hand side of Figure 1, are factors related to once drivers are caught by law enforcement, what determines whether they're successfully prosecuted, what are some factors that

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determine success in...and alcohol treatment programs and things related to that. And so you can see by the arrows interlinking all these factors that we can't look at any single factor in isolation because you would not capture a lot of this, a lot of the secondary and tertiary benefits, since, you know, increasing funding for law enforcement efforts is going to affect certain factors but not others, for instance. And so you have to look at all these factors comprehensively, as a system, in order to determine what combination of policies might be most effective in curbing DUI. [LB114]

SENATOR HARMS: Will you then be looking at the medical and psychological impact of...or maybe really create something to want to drink? Is that what you're really after here or...? [LB114]

FERNANDO WILSON: Yeah, that would be part of the benefits... [LB114]

SENATOR HARMS: Okay. [LB114]

FERNANDO WILSON: ...of reducing DUI and the cost-effectiveness analyses that we propose. So we will be looking at, for instance, ER admissions and also expenditures for motor vehicle crashes associated with impaired driving and in the state of Nebraska. [LB114]

SENATOR HARMS: I'm pretty excited about that. I think it's something that I think we really need to do. I noticed in the LR249, when I looked at the comparison and how we compare out with all the states that we look at...I don't know if you have that or not. I'm sorry. It's the second page, second and third page. You see the numbers that I'm referring to, like Nebraska had alcohol-impaired driving fatalities--66, 8, you know--when you look at that, compare it out to some of the other states, some of the things that we have in place are working. And, boy, you know, I think 66 is way too many deaths. And alcohol-impaired driving fatalities under the age of 21 is...even if it's eight or one is too many. And so I think if we...the more we can get our hands around how we can control this, the better off this state will be. And I think what you're wanting to do and attempting to do is really going to be good for the state. I think we've got some...we have some things that are pretty good in place, but now we need to plan out, psychologically and mentally, you know, just exactly what creates this issue. And maybe earlier in our lives, with these...as teenagers grow up or even as far as early childhood development, there's a lot of things we're beginning to discover about this whole learning process and this whole aspect about mental health starts really early, much earlier than what we ever thought before until neuroscientists got involved. And so I have a...I think this is good. I have a real interest in this, and I'd like to see whatever we could do to fund some of this because I think you'll start to give us a little bit of a key to how we can stop what's going on. I applaud you for what you're doing. Can you tell us, and then I'll leave you alone here, Dr. Wilson, of how you determine the cost or how this worked out, how you came up with the cost for this? [LB114]

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FERNANDO WILSON: Well, that will be one of the databases that we'll look at. For instance, the Healthcare Utilization Program through AHRQ, and another database would be Medical Expenditures Panel Survey. But essentially we're going to look at different databases on healthcare utilization that collect data on costs and... [LB114]

SENATOR HARMS: I'll tell you what would probably be helpful, Dr. Wilson, would be if you could give us a budget, just kind of break that out to kind of show us what that cost is about and how you're going to use some of those dollars. It would be easier for me to, maybe, understand. I applaud what you're doing and definitely support it. I think it's something we need to continue to work out of...work on with the state, and particularly in rural Nebraska, because we know there's a lot of issues that happen there with kids and people being killed with too much alcohol and driving. I applaud that, but if you could give us a budget, it would be very helpful. [LB114]

FERNANDO WILSON: Yes, and I can certainly do that. [LB114]

SENATOR HARMS: Thank you very much for coming. [LB114]

FERNANDO WILSON: Thank you. [LB114]

SENATOR MELLO: Thank you, Senator Harms. Senator Kintner. [LB114]

SENATOR KINTNER: Dr. Wilson, thank you for coming. I'm glad you're here to answer questions. Let me try to walk through what I think is going to happen on this study, how you're going to do it, and you tell me what I've missed. You're going to look at the laws of other states, what other states are doing,... [LB114]

FERNANDO WILSON: Um-hum. [LB114]

SENATOR KINTNER: ...how those are working in other states. You're going to look at our statistics, since we, I guess...I don't know how far...how far back are going to go on this? [LB114]

FERNANDO WILSON: As far back as we need to,... [LB114]

SENATOR KINTNER: Okay. [LB114]

FERNANDO WILSON: ...at least into the early '90s. [LB114]

SENATOR KINTNER: Okay, so you're going to look at things we've done versus how it's worked. [LB114]

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FERNANDO WILSON: Um-hum. [LB114]

SENATOR KINTNER: And then over here I see you're going to look at alcohol sales and service, regulations enforcement, sanctions, retail availability, price, social availability. And you're getting over here and you're looking at intervention factors and things, demographics, and all of that. Okay, what else are you looking at that I'm missing? Is there anything else you're going to be looking at? [LB114]

FERNANDO WILSON: In terms of outcomes or in terms of additional factors? [LB114]

SENATOR KINTNER: Of the whole...anything in the scope of this study. [LB114]

FERNANDO WILSON: Well, I mean, the first stage is to see what's out there, in terms of what's been published on these policies, what do we know works, what do we know that doesn't work. The second step is to basically look at all the statutes in Nebraska that pertain to DUI or impaired driving and do a legal mapping, basically. Look at...decompose those factors, the specific statutes, into, for instance, the minimum number of months that licenses were suspended for first offense or the fine amount for first offense, which is \$500. Once we've done the legal mapping where we're deconstructing these statutes, then we can model those and identify what is it about the specific characteristics of Nebraska's statutes that are more or less effective in relation to other states. So, for instance, is the maximum fine for a first offense at \$500, is that optimal or should it be raised? Or would or should individuals, first offenders, be allowed to plea down to reckless with alcohol in Nebraska or not? And so that's the idea, in the sense of deconstruct the laws, use our data to try to measure the impact on injuries, fatalities, on number of impaired drivers in Nebraska, pre- and postpassage of these statutes, and...so we can say something about their effectiveness. [LB114]

SENATOR KINTNER: So you're basically, to break it down, you're studying data. You're mining data, you're studying it, you're analyzing, you'll bring it together. You're not out on a crash site, measuring how long the skid mark is, and the tree got knocked over, and you're not doing any of that stuff, right? [LB114]

FERNANDO WILSON: Well, one of the databases that we will use, the Fatality Analysis Reporting System, does have, actually, that detail. [LB114]

SENATOR KINTNER: But you're looking at someone else's who gathered that. You're just looking at their data, right? [LB114]

FERNANDO WILSON: Yeah, I mean, it's administrative data. It's based on police reports. It's based on hospital records, coroner reports. So it's not a sample. It's highly detailed, authoritative sources for these data. And so, you know, it...which do provide that level of detail. If we wanted to know the average length of the skid marks

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that...caused by, you know, the average alcohol-intoxicated driver in Nebraska, we could actually find that. [LB114]

SENATOR KINTNER: Yeah, you could. Okay. Well, if you're just looking at data, I would think a Ph.D. and seven or eight undergrad students who were dedicated ought to be able to mine data, bring it together, organize it under a Ph.D. looking at it and supervising. I can't, for the life of me, figure out why you'd spend more than the cost of my house, or at least the cost of my house. I mean, I can't...how...all right, why couldn't you do this for \$50,000? [LB114]

FERNANDO WILSON: Well, I mean, it's...we do budget for Ph.D. students to help collate the data, to help map the Nebraska statutes into something that's analyzable with our statistical packages. But ultimately someone has to bring it together and to basically build a simulation model based on Figure 1. So if you look at it a different way, Figure 1 is a simplified version of what we're actually going to do. It's actually a complex system of equations to actually simulate the effect of these statutes on injury, fatality outcomes, and also number of crashes. And so I think we actually budgeted fairly, in my opinion, conservatively, but I'll be happy to provide our budget breakdown to you, Senator. It's a 12-month study, and the cost was based on simply the intensiveness of time that will go into all the data analyses and constructing a simulation model. Now it should say that approximately \$46,000 will go to the Public Policy Institute here in Lincoln, UNL, for aid and mapping some of these statutes as well. But it's just going to take...it's a complex study that's going to take a lot of time. [LB114]

SENATOR KINTNER: It doesn't seem to me to be quite that complex. But I don't mean to give you a hard time. I appreciate you being here. This needs to be done. You know, I treat taxpayer money like it's my money. And if this was my money, I wouldn't spend \$200,000 for this. There's no way. I mean, you stick a needle in my eye, I wouldn't do it. I just...I wouldn't do it. But I look forward to seeing the budget, and maybe when we see the budget it might make a little more sense. Thank you for being here. Appreciate it. [LB114]

FERNANDO WILSON: Yeah, thank you. [LB114]

SENATOR MELLO: Is there any further questions from the committee? Senator Nelson. [LB114]

SENATOR NELSON: Thank you, Senator Mello. Thank you, Doctor, for coming today. I just...running through LR249 here, 2011, was...there's a page here. It related to DUI court and hard-core offenders' behavior. A long-term treatment program offers incentives such as modification of treatment and everything. Are...it seems to me that we'd be better off to look at root causes, psychological factors, why people are repeat drunk drivers, and maybe concentrate on that more than penalties and things of that

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sort and the length of time in jail. From looking from your chart, are you getting into that area at all? [LB114]

FERNANDO WILSON: Yeah, those will be some of the factors in primary prevention on the first section of the chart. Essentially, we would have to determine, you know, what, essentially, would...what factors would predict why an individual would decide to drink alcohol and subsequently drive. And so we will definitely go into that, in terms of modeling that as a first stage in the simulation model. [LB114]

SENATOR NELSON: I just didn't see anything about that here in primary prevention. You've got norms, drinking, social availability, but there again, so much depends on the individual and their outlook of what they're afraid of, what they're not, what they're compensating for, things of that sort. So I would hope that would be an important part of your first part of the study here. [LB114]

FERNANDO WILSON: Absolutely. [LB114]

SENATOR NELSON: Okay, thank you very much. [LB114]

FERNANDO WILSON: Thank you. [LB114]

SENATOR MELLO: Seeing no further questions, thank you. [LB114]

FERNANDO WILSON: All right, thank you. [LB114]

SENATOR MELLO: Are there any further testifiers in the neutral capacity? Seeing none, Senator Harr, would you like to close? [LB114]

SENATOR HARR: Thank you. And I do owe the committee an apology. I have a budget and I don't know why I didn't think to bring it. That's ridiculous. So I have it. I will get it. It's a very valid question. Yeah, I have no reason why I didn't bring it. What I will say though is, you know, when you're making the budget, you've got to remember we have indirect costs. Anytime we do grant-type stuff, there is a cost that goes to the overhead of running the institution. Ph.D.s are not cheap. They may be underpaid, but they're still not cheap. And I want this to be a thoroughly...thorough, well-done study. So I would...I have notes, even before you brought it up, Senator Nelson, DUI court, looking at how are DUI courts working, not working. We only have one in the state of Nebraska. I think it's past the pilot...I think that it existed long enough that, if it's working, we can expand beyond pilot program. But we've got to have the data to prove it's working. The laws, what laws are working and which ones aren't? How do we establish control to figure out what laws are working and which ones aren't? That you just can't throw an undergrad in there. You have to have some high-level thinkers to figure out how to do that data, how to compromise that to figure out for all the variables that are available. Secondary, what

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secondary ideas are available out there? Is mass transit a valid alternative? Well, not everywhere in Nebraska but maybe in some of the larger cities. Do we need to invest more in mass transit? I know back East they have something called....it's a franchise called Sam's Safe Ride Home (sic), where you call and they come and pick you...they don't just pick you up, they pick up your car as well. So two people come, and then you don't have the problem of getting your car in the morning, because I know that's an inhibitor. Some people say, well, I'd take a cab, but how am I going to get to work in the morning? Well, it solves that problem. How effective is that? And so there are a lot of ideas out there, and so we've got to look at what all the ideas are and try to figure out which ones really work and which ones don't. And finally, education: When I...my dad tells me when he was a kid in his small town the issue of drinking and driving, the person that was harmed wasn't...was considered the person who was driving, and that's all anyone ever really thought about was, was that person going to harm themselves? There wasn't thought of, hey, this one's going to...they could possibly harm other people. And yet now, through education, we realize that's a huge factor, especially in urban areas. And so we've got to look at what can we do to educate, to remind people that, hey, we do possibly have a problem. So that when you ingrain it in people's cranial knowledge, and the idea behind that is when you're drinking and driving, or drinking, you don't have your faculties about you as well. That's by the very definition of drinking. So we have to really educate people so it becomes part of their cranial knowledge to say, whoa, whoa, whoa, risk isn't worth the squeeze on this; do our own cost-benefit in their head. So education is a very, very important part of it. Fear plays into that, but I think education is as well. And so, you know, it...I will have a budget. But as far as \$250,000, that may sound like a lot. But when you take into account the lost productivity from DUIs alone to the state, it's more than \$250,000. When you take into account the additional cost to Medicare and Medicaid due to accidents caused by drinking and driving, it's more than \$250,000 a year. So you start looking at what the cost benefits are to the state, and this is one of those preventative...where we can look to see what is working and hopefully install some...instill some best practices. Thank you. [LB114]

SENATOR MELLO: Thank you, Senator Harr. Are there any further questions from the committee? Senator Harms. [LB114]

SENATOR HARMS: Thank you, Senator Mello. Senator Harr, in fairness, there's a fiscal note here that has kind of a...has a breakdown of that amount. I just wonder if you could give us a little more detail in that aspect, which would be helpful for me. [LB114]

SENATOR HARR: And I have it. [LB114]

SENATOR HARMS: So I wanted to let you know that's there so that you didn't forget. [LB114]

SENATOR HARR: It...yeah, and I looked at...okay. [LB114]

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SENATOR HARMS: They took good care of you and they laid that information out for you, okay? The other thing I would just say, and I'll close, that I think anytime you can bring University of Nebraska at Omaha, College of Public Affairs and Community Services together with University of Nebraska Medical Center, you're going to get one heck of a report. I have nothing but...I'm excited about them, and I think that, if they can put that together, I think, and bring the two organizations together, you're going to get...you'll get a lot of research that's valid and important and research that we can use, because I have never found either side to be in error. So you picked two good partners and I commend you for it, because I think out of it will come some things we can use in this great state to change the issue that we have. Thank you for doing that. [LB114]

SENATOR HARR: Well, thank you. I appreciate that. [LB114]

SENATOR MELLO: Is there any further questions from the committee? Seeing none, thank you, Senator Harr. [LB114]

SENATOR HARR: Thank you. This was my first time in front of Appropriations. I might have to come back, you guys were so nice. (Laughter) Just kidding. [LB114]

SENATOR MELLO: That will end today's hearing on LB114 and take us to our next hearing on LB184 by Senator Ken Haar. [LB114]

SENATOR HAAR: So today it's Harr-Haar, is that it? [LB184]

SENATOR MELLO: It is the Haar day in front of the committee. (Laughter) [LB184]

SENATOR HAAR: (Exhibit 5) All right, cool. So I tell everybody mine is authentic German-Dutch. The other Harr is, we think, people that snuck in from Ireland and snuck across the border and changed their name. Anyway, today I'd like to talk about wind. And I'm just going to limit this because I could probably talk for two days about wind. But I brought along...this keeps me...you know, it's one of those squeezey things that keep your nerves down. The big turbines these days, by the way, we figured today at lunch that the Sower would be looking right at what's called the nacelle, where all the gears and everything are, in some of the biggest turbines nowadays. They're that tall--120 meters tall. They're huge and they produce a lot of electricity. The sheet I passed out, if you've ever passed this sign, it will catch your eyes. It was designed by students at Elkhorn Valley Schools, and you'll hear from someone from that a little bit later. But it really says, "The Power of Green," and you're going to see how the power of green has actually influenced a whole community. The appropriation today is asking for money for the Nebraska Wind Application Center. The bill would appropriate \$50,000 to the Board of Regents for the Nebraska Wind Application Center, and it's really a two-year bridge. This has been a federal...and you'll hear more about the details of this later, but it's

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been federally funded for five years. There will be a two-year bridge period in there, and in that time, hopefully, the wind industry in Nebraska will have grown and prospered and will support this program, two-year bridge. The Nebraska Wind Application Center at the University of Nebraska is important for the future growth of Nebraska's wind industry, the state's economic development, and the competitiveness of Nebraska's students in career development and employment. The center works with Nebraska schools to install wind turbines that generate power, as well as provide experience for classroom learning at all grade levels. The center provides Nebraska schools with technical assistance regarding installation of wind turbines and connection of the wind turbines to the power grid. And the center provides a partnership between schools and the university that results in vital learning and experience for the students at the university and at the schools receiving wind turbines. Today you're going to be hearing from Ian Baring-Gould, who is from NREL in Colorado, in Denver, Colorado. He's the technology deployment manager, and this is where the funding has been for the last five years. You're going to hear from Dan McGuire, who is the Wind for Schools man in Nebraska, and will be leaving that post fairly soon. But Dan has worked with schools all over the state. Dr. Jerry Hudgins, who is the chair of the Department of Electrical Engineering at the university and the director of the Nebraska Wind Application Center; and then you're going to hear the kind of excitement that this program generates in schools, and we're going to hear from John Dittrich, who is with the Elkhorn Valley Schools. He was a former school board member and then headed up the wind committee when they developed this program at the Elkhorn Public Schools. And then, finally, at least, we've lined up John Hansen to give some insight on this. So with that, I will let you question, listen, hear from the experts on this and to question them. [LB184]

SENATOR MELLO: Thank you, Senator Haar. Are there any questions from the committee? Senator Bolz. [LB184]

SENATOR BOLZ: Hi, Senator Haar. You referenced that this is two-year bridge funding. Can you just explain to me what your vision for three years from now is? [LB184]

SENATOR HAAR: You bet. First of all, the funding for...the \$50,000 funding is not for parts. It's not for turbines. That's supplied. Part of the program, and you'll hear more about that, but part of the program of the Wind Application Center is to work with schools to develop grants, especially local grants and so on, to buy the turbines. So much of the money comes locally. But again, the bridge part...so the money really is for the coordination process of this program. And again, the hope and the goal is, after these two years, to have developed other funding sources even for the administration part, and actually we have quite a developing wind industry in Nebraska, and that would hopefully be the source for the funds after the two years. But ask that question of some of the people that follow me, and they can answer in more detail. [LB184]

SENATOR MELLO: Senator Kintner. [LB184]

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SENATOR KINTNER: Hi. [LB184]

SENATOR HAAR: Hi. [LB184]

SENATOR KINTNER: If I heard you right, and maybe I heard you wrong, you want to spend taxpayer money to spend taxpayer money. Is that right? [LB184]

SENATOR HAAR: No, this is not double-dipping. It's supporting a program at the university which has now been supported by a grant from the federal government. So again, the money in the past five years has come from NREL, the National Renewable Energy Lab, and this will be a bridge to get it to the next stage, hopefully, where industry will support the program. [LB184]

SENATOR KINTNER: Well, what I thought I heard, the reason I deducted that, was we want a grant so we can...schools can apply for more grants. So we want to spend money to get money, all furnished by taxpayers. Is that...that's how I came to that. [LB184]

SENATOR HAAR: Oh, okay. Well, again, some of the people following me will talk about that, especially the Elkhorn Public Schools, to tell you how that was funded. But the Nebraska Wind Application Center helps local schools, and most of that money comes from private industry, from private resources, from, I suppose, bake sales and so on in the community to raise that kind of money. That's one thing. And then the other thing is the Wind Application Center produce...it gives us the technical expertise. So when a school has figured out how to buy that turbine, somebody can go out and help install the turbine and also help maintain the turbine. So really, this is public insofar as this center is concerned. But most of the money then for the parts, for the wind turbines and so on, comes from local communities. But ask that question again of especially the man from Elkhorn, where they've actually done that and gotten a lot of excitement and stuff going in the community. [LB184]

SENATOR KINTNER: Great, thank you. [LB184]

SENATOR HAAR: Yeah. [LB184]

SENATOR MELLO: Are there any further questions from the committee? Seeing none, thank you, Senator Haar. [LB184]

SENATOR HAAR: Okay, I'll retrieve this when I close. (Laugh) [LB184]

SENATOR MELLO: How many people are here to testify today on LB184? Can you raise your hands? Nine. Okay. We'll first take proponents of LB184. [LB184]

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EDWARD IAN BARING-GOULD: (Exhibits 6, 7, and 8) Good afternoon, Chairman, committee. Thank you for having me here today to talk about this proposal, LB184. My name is Edward Ian Baring-Gould, and that's B-a-r-i-n-g-hyphen-G-o-u-l-d. And I am the technical director for the Wind Powering America Initiative under the National Renewable Energy Laboratory, working for the U.S. Department of Energy, so a big mouthful there. I've been in this position, working at the laboratory for about 18 years, and then I've been working in the wind area for about 25 years, so a fair amount of experience in wind, and then have been managing and working with the Wind for Schools Initiative, which is what we're talking about here, since its inception in 2007. The reason for the Wind for Schools Initiative was because in the 2007 time frame there was a study done, basically led off by President Bush in the State of the Union Address, where he talked about how much energy could come from wind technologies to support energy usage in the United States. And so based on that, the Department of Energy commissioned a study to determine what...whether that was feasible. And part of the challenge that was identified through that study was educational infrastructure. Wind energy is, to a degree, a paradigm shift in energy development that we haven't seen in quite some time. And so you can go to the Colorado School of Mines, you can go to the South Dakota School of Mines, but there is no school of wind. And if wind energy is going to play a role in providing electrons for the nation's electricity system, we need talented and educated people to be able to do that. And so the Department of Energy initiated the Wind for Schools activity to help spur that development. And the initiative, it's active in "eleventeen" states and has a focus that is really fourfold. The first one is to engage K through 12 students and teachers at schools in wind energy and, more broadly, in STEM activities--so the science, mathematics, technology, and engineering--to develop the expertise that we need in this area. The second area was to engage students at the university level in the deployment of wind technologies, working through...working with the students to install turbines. So instead of doing a bunch of book learning about engineering, they get to actually help implement, install a turbine at a K through 12 school. And so they get to learn by doing and then have better experience in going into the industry once that is completed. The third main focus was to introduce wind technology to communities. And so a new technology is always frightening to people. You don't know what it is, you don't know what to expect. And so being able to engage communities in a discussion about wind energy and energy in general was the third area. And then the fourth one was to implement centers of excellence in states, primarily focused at the land-grant colleges, so that when an organization like this board has a question about wind energy, they don't come to the National Renewable Energy Laboratory, some geek from outside of Nebraska. They can go to the local university and ask their questions there in an impartial way and get true answers about wind energy. And so the Wind For Schools activity was initiated. Nebraska was one of our first six states. We started funding about five years ago, and there had always been a desire through this program to switch from federal funding to other funding sources, and that was considered an off-ramp for the federal program.

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And that allows us to engage more states as we go forward. And, unfortunately, we timed this rather poorly in regards to the recession and the kind of changes within the wind industry. And so, even though we've been trying to implement, kind of, hand-offs in all the states, some states are more challenging than others, and that's the reason that we have here. The Nebraska Wind for Schools activity has been quite successful, installing 25 systems at schools, K through 12 schools, and then has supported educational infrastructure at those schools--classes and things of that nature--to bring engineering and exciting engineering into the classroom. And so we want to continue to do this. The NREL and the DOE will continue to provide support, but we cannot provide the level of funding that we have had in the past to be able to maintain the program at the university. I've provided two documents here. The first one is just a little colored brochure that describes the program in general, and then a larger document which is a more thorough overview of the Wind for Schools activity, and the kind of quick summation of Nebraska is on page 54 for your reference. So again, I'd like to thank you all for considering this bill going forward. And I would be more than happy to answer any questions primarily focused on the larger program. And then we have other speakers that can talk about the specifics in Nebraska. [LB184]

SENATOR MELLO: Thank you, Mr. Baring-Gould. Are there any questions from the committee? Senator Kintner. [LB184]

SENATOR KINTNER: Thanks for coming. [LB184]

EDWARD IAN BARING-GOULD: My pleasure. [LB184]

SENATOR KINTNER: One thing that kind of caught my eye, I'm trying to figure out what the taxpayer interest is in this, and I'm having some trouble seeing it. But maybe I'm a little dense. Maybe you can help me. You say that you want to...this is...well, one of the things...did you...that this program does, it introduces new technology to communities. Why do communities need to be introduced to new technology? [LB184]

EDWARD IAN BARING-GOULD: Because the most simplest way that I've used it is someone who doesn't know about a new technology, doesn't know about a new device, will be less likely to accept that device, whether it's a new car, a new energy source. And energy is something that is completely intrinsic in everything that we do, from our cell phone to our TV. And the energy system in the United States needs to continually evolve. So the concept that we need to work with communities, with other organizations to introduce and to gain more acceptance on changes in that technology or in that energy infrastructure helps us ensure that we're always moving forward. We could certainly continue to use old technology forever, but that's not...that has no benefit, or not no benefit, but it certainly doesn't allow us to reach the most optimal decision, the...from an engineering perspective or from a policy perspective, which is what's best for the consumer. So if a consumer doesn't know about change, doesn't know about

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other options that they might have available, lower-cost options, cleaner options, whatever they choose to feel is important to them, without understanding what those options are, they won't make choices in regards to those options. So part of this program is to take the fear away so people can make an educated decision on what they would like to do and go forward from there. [LB184]

SENATOR KINTNER: Do you think in the early twentieth century there was a fear of cars? [LB184]

EDWARD IAN BARING-GOULD: There certainly was. I think...I'm not an expert in this at all. [LB184]

SENATOR KINTNER: It's history, I know. [LB184]

EDWARD IAN BARING-GOULD: It's history. And so, yes, there was a fear of cars in the sense that everybody was used to their horse and buggy, and these fast-moving devices that no one knew much about that were noisy and smelly. And so, yes, I...change is not something that any of us deal well with. I've got a six-month-old, and I can tell you change can be really hard. And so you...the...anything that we can do to help mitigate fears that are unjustified and provide true, honest considerations of the pros and cons of any change going forward so that people can make educated decisions is all for the better. [LB184]

SENATOR KINTNER: Was there a government program in the early twentieth century to introduce people to cars and mitigate fears? [LB184]

EDWARD IAN BARING-GOULD: No, but there certainly...if we look...well, I have no idea, okay. But if... [LB184]

SENATOR KINTNER: Well, I'll give you the answer. [LB184]

EDWARD IAN BARING-GOULD: Yeah. [LB184]

SENATOR KINTNER: No, there wasn't. [LB184]

EDWARD IAN BARING-GOULD: No, there wasn't, okay. There have certainly been huge efforts in regards to public education in regards to nuclear power. I mean, we all remember Mr. Atom. There has certainly been a fair amount of engagement in the last number of years. The nuclear program in the Department of Energy has spent hundreds of millions of dollars in the education space, a lot of it providing funding to universities to do very similar things of this nature. So this work that's happening in the wind space is certainly not unique from the federal sector. It happens in all of the different technologies, some of them not as mature as wind. And some of them, like nuclear

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technology, is very mature, as comparison to the wind space. [LB184]

SENATOR KINTNER: Well, there was no government program to introduce people to cars, airplanes, personal computers, calculators. But people saw a benefit, and when they saw a benefit, hey, someone else is using it, maybe I can go faster if I get a car; hey, you know, if I get a car, maybe, that gets better gas mileage, I can go somewhere further for less money; hey, if I get a calculator I can add quicker than a slide rule. I'm not sure where the government needs to spend money to educate people about the benefits of power. If it economically made sense, wouldn't people just do it? [LB184]

EDWARD IAN BARING-GOULD: People are doing it. That's certainly the case. I mean, the fact that over the last ten years wind and natural gas has been the...has traded off, in regards to the most production that has been installed in the United States, indicates that people are clearly putting in wind and clearly putting in natural gas. But the key is not...is more around communities being able to make educated decisions. Now I could come in and install a wind plant over a community and force it upon the community. Personally, I think it's much better to educate the community so that they can make an educated decision. Is wind what they want to do or is natural gas what they want to do or is coal what they want to do? Or would they rather use a horse and buggy? The key is that there is clearly, at least demonstrated, a government role in providing a kind of a fair and unbiased source of information so that communities and the leaders and the public in those communities can make educated decisions about what choice they would like to have. And that's a historic government role that has been undertaken for decades. [LB184]

SENATOR KINTNER: Mr. Chairman, ask...or a comment. It used to be that the people selling the technology, the people developing the technology, would come in and do the educating. And if they made a good pitch and they could make the case why it would save money, people would buy it, communities would buy it, homeowners would buy it, companies would buy it. But now it seems that we want the government to come in and make the case for them. Why is that? [LB184]

EDWARD IAN BARING-GOULD: I don't think the government needs to come in and make the case for them, but I think the government has a role and has demonstrated a role in the past to provide fair and unbiased information in regards to what are the real impacts. Yes, I could come into a community and, if I'm a great salesperson, then I could convince the community that one option was better than the other. Is that actually the best choice for the community? It's only good if I'm a good salesperson and I have the heart of the community in my mind. The government, one of the government roles is to provide that third-party, unbiased, so that someone can't make a sales pitch to a community that the community doesn't know the final impacts of. [LB184]

SENATOR KINTNER: Thank you. [LB184]

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EDWARD IAN BARING-GOULD: That would be my... [LB184]

SENATOR KINTNER: Thank you. [LB184]

EDWARD IAN BARING-GOULD: Thank you, sir. [LB184]

SENATOR KINTNER: Appreciate it. [LB184]

SENATOR MELLO: Senator Nelson. [LB184]

SENATOR NELSON: Thank you, Senator Mello. Thank you, Mr. Baring-Gould. [LB184]

EDWARD IAN BARING-GOULD: Pleasure. [LB184]

SENATOR NELSON: In your summary report here, you talk about the Wind Application Centers are formed at universities to train engineering students in wind applications analysis and deployment, and then they work...they provide valuable experience. Then you mention a state facilitator. [LB184]

EDWARD IAN BARING-GOULD: Uh-huh. [LB184]

SENATOR NELSON: Is that facilitator part of the Wind Application Center or is that a separate position? [LB184]

EDWARD IAN BARING-GOULD: We have funded it as a separate position in the initial years of the project because it was envisioned that the professors at the university are not necessarily the best people to go out and talk to community members and introduce the idea of installing a wind turbine at their school. And so we had identified facilitators in each of the states that were more community-based people who were involved in the educational infrastructure or something of that nature, and they would help develop the program in the first few years. And then, once the program was established, then that position would go away, and that responsibility would rely or would end up being at the university. [LB184]

SENATOR NELSON: Are they volunteers, the facilitators? [LB184]

EDWARD IAN BARING-GOULD: No, they were paid as well. [LB184]

SENATOR NELSON: Not by the university? [LB184]

EDWARD IAN BARING-GOULD: Not by the university. Well, in the first round they were paid individually. In the second round that we have done, which is not Nebraska, they

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were actually included in the contracts that we did to the university. [LB184]

SENATOR NELSON: Okay. So basically, as I understand it then, this \$50,000 each year would go to the Board of Regents and supplement the funds that they're putting in this area as far as wind applications, training students. It...I mean, is that \$50,000 a year enough to do the training in that area of the students, for instance, at the University of Nebraska, or do they have to add some money of their own? [LB184]

EDWARD IAN BARING-GOULD: I cannot comment specifically in regards to Nebraska. We'll have to ask one of the other ones. In all of the other states it's been used as leverage funding. So we provide in the neighborhood of \$60,000 a year that is leveraged by local funding and then the actual installations of the equipment are done by other sources of funding, typically grants that the school gets. Lowe's has been a great supporter of this activity in the past, as well as donations of concrete and wire, the local utilities are always very, very supportive of this activity and do line trucks and all that kind of stuff. So it's a definitely a highly leveraged activity. We have... [LB184]

SENATOR NELSON: Well, I appreciate that. I understand a little better then what the application is. Thank you. [LB184]

EDWARD IAN BARING-GOULD: Yeah, certainly. [LB184]

SENATOR MELLO: Is there any further questions from the committee? Seeing none, thank you very much, Mr. Baring-Gould. [LB184]

EDWARD IAN BARING-GOULD: Certainly. Thank you all. [LB184]

SENATOR MELLO: Our next proponent on LB184. [LB184]

DAN McGUIRE: (Exhibit 9) Good afternoon. My name is Dan McGuire, D-a-n M-c-G-u-i-r-e. Chairman Mello, members of the Appropriations Committee, thank you for the opportunity to appear here today in support of LB184. I want to also thank Senator Ken Haar for introducing this important bill and for asking me to testify. I've been the Nebraska Wind for Schools facilitator in Nebraska since the program...and a consultant to the National Renewable Energy Lab and DOE Wind Powering America Wind for Schools Program since '07, when it was launched. I work closely with Dr. Jerry Hudgins and the University Wind Application Center, as we call it, the UNL WAC. Thanks to our efforts, our team efforts, I am pleased to report that Nebraska leads the nation with a network of 25 Wind for Schools K-12 partner schools. So we are achieving the goals, as mentioned by Mr. Baring-Gould. Nebraska is very fortunate that NREL funded both my work as facilitator and the University Application Center since '07. That funding is now ending. Nebraska's 25 K-12 partner schools paid for the installations of these Skystream wind turbines through a number of different ways with their own funds

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and with funding from a combination of grants and in-kind support. The grants came from NPPD in the first few years, USDA, federal ARRA grant funds through the Nebraska Energy Office for a few of those, SEP grants from the Nebraska Attorney General's Office, and private grants funds. In-kind support in the form of equipment and installation work was also provided by both NPPD and local public power districts, local concrete, electrical construction, and other private businesses. The UNL Wind Application Center was directly involved in every 1 of those 25 installations, which now provide teachers and students with direct hands-on experience with a wind turbine and how it works and the various aspects of it. This private-public partnership with Nebraska's K-12 school network resulted in the creation of an important wind curriculum and career development system that starts at the rural schools and connects directly to the University of Nebraska and the state's community colleges, most of which also have Skystreams or other wind turbines installed at their schools. And let me mention none of these 25 schools were recruited, not 1 of them. They all came to me, contacted me, and asked me to come out and present the program. So this was not something...you know, they heard about it publicly through different meetings we had and so forth, but we didn't recruit any of them. Northeast Community College at Norfolk now has a wind technician training program, first in the state. Southeast Community College has a comprehensive energy course structure that includes wind energy. So the results of the...for Nebraska K-12 students, is learning early about the possibilities of jobs and careers available in the growing wind industry, including right here in Nebraska. Thanks to the Nebraska Legislature and your policy leadership starting in '07 and since, our state is making substantial progress with new wind energy development. We now see major utility-scale wind energy projects in the state that will soon take us past 500 megawatts of installed capacity. Those projects are major drivers of rural economic development. Just as ethanol has been a major economic superstar for Nebraska's economy, wind energy development is moving down a similar path that generates substantial economic benefits. Wind energy development also provides numerous career opportunities and jobs. The 20 percent vision by 2030, that's put forward by NREL, DOE, as Mr. Baring-Gould mentioned, I believe, during the Bush administration, and AWEA and others said 20 percent by 2030 would support roughly 500,000 jobs, increase annual...and those would be in many different fields--accountants, lawyers, steelworkers, electrical, manufacturing, engineers, steel manufacturing, and so forth, would increase property tax annually, revenues to more than \$1.5 billion by 2030, would increase payments to rural landowners to more than \$600 million by 2030. So it's very important that Nebraska be positioned to participate and excel in the economic career development benefits of the 20 percent vision. The University Wind Application Center is the key and is the go-to place to help establish the career opportunities provided by the wind industry, whether electrical engineering, mechanical, or wind technician training. So the infrastructure, Nebraska educational infrastructure, now realizes the benefits of that federal investment that caused our Wind for Schools network to become a reality and lead the nation. It's now time for the state to step up and help with that funding the University Wind Application Center, so the appropriations in LB184 will help

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take care of that, as the senator said, as a bridge, and also serve that network. We built a network now of 25 K-12 schools from west to east, north to south, all across the entire state, from Crawford to Kimball to Hayes Center, all along the southern border up. Most of them are in the northeastern part of the state but in the east and northeast and north-central, all over the place in the central. And it's the key to developing the curriculum, the Wind Application Center new curriculum and career development. And they have to assume the role that I've had for the last five years, which is going out and presenting the program and helping them get...the schools get careers, called, you know, student guides and so forth. I've sent this to all of the schools plus tons of other literature I didn't bring along. So I've attached my testimony, the locations and maps showing Nebraska's partners, Wind for Schools partners, and I also included a list of jobs and careers posted last week on the wind industry Web sites as well as an update from the American Wind Energy Association on the record development...record growth in 2012. Thank you very much. I'll be pleased to answer any questions. [LB184]

SENATOR MELLO: Thank you so much, Mr. McGuire, for your testimony. Are there any questions from the committee? Senator Kintner. [LB184]

SENATOR KINTNER: Thanks for coming today. [LB184]

DAN McGUIRE: Yes, sir. [LB184]

SENATOR KINTNER: I've heard George W. Bush mentioned twice today. Let me go back to an earlier Bush, George H. W. Bush. [LB184]

DAN McGUIRE: Uh-huh. [LB184]

SENATOR KINTNER: In 1991 the American manufacturer of TV, back when we still made some TVs in America--Magnavox, RCA, General Electric--they came to President Bush and said, this HDTV thing is coming and we have got to get behind it. We've got to research it, get out in front, or the Japanese are going to blow us out of the water. [LB184]

DAN McGUIRE: Uh-huh. [LB184]

SENATOR KINTNER: And, surprisingly enough, I can't believe it, the President, President Bush, the older President Bush, actually made the right decision. He said, no, we're not spending a penny of taxpayer money; go do it yourself. So you know what happened? They went and they developed HDTV and, no, the Japanese did not blow us out of the water. We did just fine and without a penny of taxpayer money. What happens if we just said, no, we're not spending \$50,000, not going to (inaudible) you \$50,000 next year or the next year, the next year? [LB184]

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DAN McGUIRE: Uh-huh. [LB184]

SENATOR KINTNER: If this is such a good idea, the free market is going to take it and run with it. People are going to see an opportunity because they can make money with it. And if they can't make money with it, it's going to die, and it will all go where it ought to go. What would you say to that? [LB184]

DAN McGUIRE: Well, I'd say, first of all, this is more of an educational career development for our K-12. This was always intended to be a link and targeted at rural Nebraska, even though, for instance, Papillion-La Vista is one of the schools. It is a partner school. It was always targeted at the rural states where...or the rural areas most likely where the wind projects, utility-scale wind projects, would be sited. So it was all about community engagement and it was all about making sure that the schools...and the schools are really a center, the heart, of the community, frankly, in the rural areas especially. So when you have them being knowledgeable, for instance, you would...I think it was mentioned earlier, something about other industries, nuclear and coal and this and that. Well, they put information out to the public. It may not be accurate information about wind energy, because their interest is in advocating another source of energy. So unless there is the DOE-based National Renewable Energy Lab unbiased information to have in the hands of the school and the community leaders--and usually the school board members and the teachers, superintendents, all of them are relatively in the category I think of community leaders--they can be a go-to place to answer many of those questions or dispel the myths that may be floating around about wind energy. So it's tied to...not saying that it created the utility-scale projects that we now are seeing in the state, but it was a parallel effort along with the history of what's gone on in Nebraska's wind development. So it's more of an educational thing so the students, our students...I think it's a competitive thing too. I think it is our students, if they go to the University of Nebraska-Lincoln, decide they want to be an electrical engineer, and one of their options is they would like to pursue or be able to be qualified to be in the wind industry as an electrical engineer for a company somewhere, this can pique their interest early on at the K-12 level. They may choose to go to Northeast Community College and be a wind energy technician. But they may want to go to Dr. Hudgins' University of Nebraska Electrical Engineering Department or Mechanical Engineering and decide, you know, this is one of the options I want to have. So they decide early on, I want to take the wind energy courses at the university. Now maybe they would have never looked at that option without this program. That would be one thought on it. [LB184]

SENATOR KINTNER: So, well, you started out saying that, you know, those sneaky coal people might be putting out some misinformation about the wind energy, or the nuclear power people or anyone but them. And the oil people might be, hey, you (inaudible) these people over here. [LB184]

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DAN McGUIRE: Well, that might be. Yeah. [LB184]

SENATOR KINTNER: You know, you've bought a car, haven't you? [LB184]

DAN McGUIRE: Yeah, I did. [LB184]

SENATOR KINTNER: Have you ever had a car salesman tell you a whopper? [LB184]

DAN McGUIRE: Yeah. [LB184]

SENATOR KINTNER: Has he ever oversold the car (inaudible) the one you got?
[LB184]

DAN McGUIRE: Sure. Buyer beware. [LB184]

SENATOR KINTNER: Yeah. That's exactly right. [LB184]

DAN McGUIRE: And that's... [LB184]

SENATOR KINTNER: So we don't need a government program to sort that out, right?
[LB184]

DAN McGUIRE: Well, the technical expertise provided by the university, and I would say that the University Wind Application Center and people like Dr. Hudgins, who are the key, the guys that are the engineers that know the answers to these questions, can caution somebody in the community if they are looking at a product that might be sketchy, might not have been cleared by the proper review labs or whatever in this country. So I think this whole program ties into that and fits exactly into what you're talking about, making sure that they're not sold a bill of goods. [LB184]

SENATOR KINTNER: Okay. Can you tell I'm a little skeptical? [LB184]

DAN McGUIRE: (Laugh) Okay. [LB184]

SENATOR KINTNER: You know, good answer. Thanks. [LB184]

DAN McGUIRE: I appreciate the question. [LB184]

SENATOR KINTNER: Thank you. Thank you very much for coming today. Appreciate it.
[LB184]

DAN McGUIRE: Absolutely. [LB184]

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SENATOR KINTNER: Yeah. [LB184]

DAN McGUIRE: My pleasure. [LB184]

SENATOR MELLO: Senator Conrad. [LB184]

DAN McGUIRE: Yes. [LB184]

SENATOR CONRAD: Thank you, Mr. McGuire. I know that your expertise on this issue is considerable and your passion is clear. Just briefly it occurred to me during your comments that this really touches upon that STEM education that is so important and focused on right now--the science, technology, engineering, and math... [LB184]

DAN McGUIRE: Uh-huh. Uh-huh. [LB184]

SENATOR CONRAD: ...I think is really the...and somebody correct me if I'm wrong in that acronym piece. But this program really hits upon each of those core focus areas that the education systems and the business community are both really looking at and focused on to ensure that we're preparing our students to... [LB184]

DAN McGUIRE: Uh-huh. [LB184]

SENATOR CONRAD: ...have the skills they'll need to be competitive in a global economy. So I want to give you just a brief opportunity to respond to that, if you'd like to, but... [LB184]

DAN McGUIRE: Certainly. [LB184]

SENATOR CONRAD: ...it definitely seems like a good fit for that... [LB184]

DAN McGUIRE: I think you hit... [LB184]

SENATOR CONRAD: ...that issue area as well. [LB184]

DAN McGUIRE: Pardon me. I think you absolutely hit on a key piece of it and that is the competitiveness of the United States and our young people as they come through and from K-12 all the way up. And sometimes in rural areas we worry that we're not...we don't have all the resources out there that urban areas do in their school system. This is one where this was targeted at rural areas. But the competitiveness of our work force and our young people coming up through...and this is tied directly into that. It...you know, this whole issue of outsourcing and over the years all that trade stuff that's gone on and loss of jobs, keep in mind that about 60 percent of a wind turbine now is built in the United States. And we'd also like to have most...I mean I'm all about U.S.

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manufacturing, always have been. And I would like...this program helps us have the expertise right here so we're not...it used to be that you brought in the engineers from Europe that were the wind energy experts. We need to have the day where we're all...the experts are coming right from here and our educational system. And that's, I think, one of the intents of this program and I think it's moving that direction. I'm just...I'm really pleased that Nebraska was able to become the leader. [LB184]

SENATOR CONRAD: Great. Thank you. [LB184]

DAN McGUIRE: Yeah. [LB184]

SENATOR MELLO: Senator Wightman. [LB184]

DAN McGUIRE: Yeah. [LB184]

SENATOR WIGHTMAN: Thank you, Chairman Mello. Thank you for being here. As I looked, and it's on page 2 or 3, I guess, of your handout here, it shows the states that have... [LB184]

DAN McGUIRE: Okay, yep. [LB184]

SENATOR WIGHTMAN: ...shows the states that have had the most wind generation... [LB184]

DAN McGUIRE: Uh-huh. [LB184]

SENATOR WIGHTMAN: ...and a lot of them are right in the area of Nebraska:... [LB184]

DAN McGUIRE: Yeah. [LB184]

SENATOR WIGHTMAN: ...Iowa, South Dakota, North Dakota. Can you tell me on those, have you had funding or groups like yourself in those states, or has that just developed on its own, or what has happened here? [LB184]

DAN McGUIRE: Yes, the states, South Dakota, for instance, we may lead in a number of wind...and they're right behind us in the number of Wind for Schools Projects, but there you can see they're number two in the percent of electricity they get from wind energy. So, yes, they were one of the initial six states. And Iowa, Iowa is way ahead of a lot of states and so they didn't have to have a Wind for Schools Program. They had a number of their own schools already going. Kansas is number five here. They're also right there with South Dakota, right behind Nebraska in terms of Wind for Schools installations. You hit on a very salient point. I think that part of our situation here in Nebraska in terms of the lack or the...not as much utility-scaled installations, we're 100

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percent public power, as you know. That is a very good thing. Nebraska has benefited tremendously from that, always has, and I'm one of their biggest cheerleaders. But it also was that they weren't able to utilize the production tax credit over the years that other states could that are not public power states, that are IOUS, independently owned utility states. So as the Legislature did in '07, you made it possible; modified the law so that they could do those kinds of projects in partnership with the private developers. So now it's moving ahead and now Nebraska is part of the Southwest Power Pool as well. I'm also cochair of the Nebraska Wind Working Group and the annual wind conference committee, and so I've heard those presentations from those various states. So I think all of this is part of helping our state do the best job it can within our unique structure and Wind for Schools is part of that. And I have to take off my hat to NPPD and the other local public power districts, whether it was Southwest Public Power or whether it was Loup Public Power, that were engaged with the schools in helping install the systems and so forth. So I hope I answered it somewhat, your question. [LB184]

SENATOR WIGHTMAN: Yeah. I also understand that because we are public power and power has been cheaper in this state than in many states that we've been a little slower in developing this than maybe states that depended more on something other than... [LB184]

DAN McGUIRE: Uh-huh. [LB184]

SENATOR WIGHTMAN: ...the sources of electricity and things such as that. I guess yours is a source of electricity perhaps as well. But is that your understanding of the reason that maybe we've been slower to develop? [LB184]

DAN McGUIRE: Well, that's part of it. Now we have the opportunity, being part of the Southwest Power Pool, to go further. We can also do distributed generation, could cause a lot more, meaning it could be used more locally on the distribution lines than necessarily just the big projects. There is that option. That possibility down the road too. That could create a lot more development. But Nebraska is also...you have to look at what's the total load here. You know, we're not the largest population state, so that feeds into, too, in terms of consumer demand, how big is the load. So you're wanting to export, and that's good, but you also have other states around you wanting to do that. (Laugh) So it's a competitive thing. I think it also helps Nebraska to be competitive to bring in the developers to have this Wind for Schools Program and the University Wind Application Center as a technical support system for the industry, to the extent that they may want to go. And I think Dr. Hudgins has probably helped some of the developers in various ways too. [LB184]

SENATOR WIGHTMAN: There has been a lot of discussion that Nebraska has been slower to move into this area than other states,... [LB184]

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DAN McGUIRE: Uh-huh. [LB184]

SENATOR WIGHTMAN: ...partly because of the cheaper public power that we do have. [LB184]

DAN McGUIRE: Yeah. [LB184]

SENATOR WIGHTMAN: And I've heard suggestions about where we rank, and we see here we rank 18th in your particular table here. Where do we rank...it seems to me I heard that we rank 2nd or 3rd in the... [LB184]

DAN McGUIRE: Uh-huh, resource. [LB184]

SENATOR WIGHTMAN: ...resources of wind energy. [LB184]

DAN McGUIRE: Third. [LB184]

SENATOR WIGHTMAN: Is that correct? [LB184]

DAN McGUIRE: Third or fourth, depending on which study you're looking at. And I talked to Mr. Baring-Gould about this earlier and they are now, because of the new, and as Senator Haar mentioned, the size of the new wind turbines and how tall they are and they can capture more of the power out of the wind, that's going to change the dynamic of which state actually is in what category or one, two, three, or four. So I think Nebraska, depending on which study, is either three or four. [LB184]

SENATOR WIGHTMAN: Thank you, Mr. McGuire. [LB184]

DAN McGUIRE: Yeah, thank you. [LB184]

SENATOR MELLO: Thank you, Senator Wightman. Are there any further questions from the committee? Seeing none, thank you, Mr. McGuire, for your testimony. [LB184]

DAN McGUIRE: Yeah. Thank you very much. Appreciate it. [LB184]

SENATOR MELLO: Next proponent for LB184. [LB184]

JOHN DITTRICH: (Exhibits 10, 11, and 12) My name is John Dittrich, J-o-h-n D-i-t-t-r-i-c-h. Good afternoon, Chairman Mello and Appropriations Committee members. I'm here today to support LB184. I am past-chair of the Elkhorn Valley Schools Board of Education, Wind for Schools Committee, which was established by our school board in 2007. I served on our school board as vice president for many years and as the Wind for Schools chair through 2010. During that time, we were the first

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school in the state to establish a partnership with the Department of Energy's National Renewable Energy Laboratory and its Wind for Schools Program. We installed our project in 2008. This partnership allowed Elkhorn Valley Schools to erect a small Skystream wind turbine that was tied into the NPPD electrical grid. The Wind for Schools Program has continued to evolve at our school since 2008. The wind turbine, in conjunction with program materials, has become a wonderful teaching tool and resource for Elkhorn Valley Schools. It is woven into our school's K-12 curriculum by our elementary and science teachers, who have been helped with guidance and materials supplied by the National Renewable Energy Laboratory and UNL's Wind Applications Center. This program has been described in greater detail by Mr. Baring-Gould and Dan McGuire in prior testimony. However, I wish to emphasize to the committee that the University of Nebraska's Wind Applications Center was a key part of establishing this DOE program within our school. We could not have completed the erection of our turbine or been able to maintain it since without the Wind Applications Center. The modest funding for UNL's Wind Applications Center contained in LB184 is critical to continue the existing programs and to expand the program. The wind turbine and our "First in the State" status in this effort is a great source of community pride and interest. Our superintendent points out that he is quickly notified by calls from the community when it has stopped turning. The wind turbine is placed next to our school bus barn, immediately adjacent to Highway 275. A picture of the wind turbine is also displayed on a large billboard advertising our school along Highway 275, accompanied with the words "The Power of Green" and a picture of that has been distributed to you by Senator Haar. This billboard was completely designed by our students, who tied our school colors and school pride to what they were learning about wind power and renewable energy through the Wind for Schools Program. In summary, the program has been a great success for our school. Once we pioneered the program in Nebraska, requests from other schools across the state came rolling in to Dan McGuire. Now 25 schools, as you've heard, are...have the program. Beyond my role as a school board member, I am a Tilden-Meadow Grove area farmer and chair of the Tilden-Meadow Grove Community Foundation. My brother and business partner and I have been longtime supporters of wind energy. We were part of the effort to ask our Nebraska Legislature to create policies that would facilitate the rapid expansion of wind energy in our state, legislation which was enacted...began to be enacted in 2007. Therefore, when I became aware of the Wind for Schools Program through the state facilitator, I saw the potential to not only excite and educate our students in a new way, but also potential to stimulate local community, landowner, and business interest in wind development. Elkhorn Valley Schools' Wind for Schools Program joined many thoughtful and influential people, organizations, and financial contributors throughout the process. We held a large Wind for Schools dedication ceremony in our school auditorium in December of 2008, the agenda of which is attached to my testimony, which also includes the funding sources for the program. The speakers included Congressman Jeff Fortenberry; chair of UNL's electrical engineering department, Wind Applications overseer, Jerry Hudgins; Dirk Petersen, general manager of Nucor Steel Nebraska; Ian

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Baring-Gould of NREL; Senators Don Preister and Cap Dierks; representatives of USDA Rural Development; representatives of Nebraska Public Power District; and Northeast Community College; and John Hansen, president of Farmers Union Nebraska. I believe it is no coincidence that since the Wind for Schools Program was launched in northeast Nebraska in 2007 that major utility scale wind projects became a reality or are now in the planning phases within or near school districts that have embraced the program. Especially interesting is what has happened near or within our school district since 2008. Two projects totaling 120 megawatts have been installed near Petersburg, 25 miles from Tilden, with turbines on the borders of our district. Two projects have been installed near Bloomfield totaling 123 megawatts. Bloomfield is 50 miles from our school district and was the fifth school to start a Wind for Schools Program. Two wind projects have been proposed within our school district with landowner meetings held and easement options solicited. A 200-megawatt project is now planned in the western border of our district and a high-voltage transmission line that serves it will likely run within two miles of our school facility and will end at a substation within our school district. So many myriad benefits have happened to us. I also have a letter of support for LB184 from Elkhorn Valley Schools Superintendent Keith Leckron, which is included as part of my testimony. He sends his regrets that he could not be here today. You also have in my testimony an e-mail from our principal that details, summarizes how we are using the program through our brand new physical science teacher who just started this year. We had a very capable science teacher before who retired. The new teacher is now putting her own stamp on this program. In conclusion, I wish to say when you're on the school board, in the end it's always about the kids. And it's about the kids and their future. And though I believe there are other benefits that I've detailed in this testimony, it is in the end why I support the Wind for Schools Program and the necessary funding to maintain it within LB184. Thank you for the opportunity to testify, and I'll be happy to answer any questions. And I hope I didn't stumble too much because I cut a little bit so I could stay ahead of that red light. [LB184]

SENATOR MELLO: Thank you, Mr. Dittrich, for your testimony. Are there any questions from the committee? Senator Bolz. [LB184]

SENATOR BOLZ: Just a brief question. Could you tell me just a little bit about the students who participate in your project and if there are young women participating in the project. [LB184]

JOHN DITTRICH: If there's any what, Senator? [LB184]

SENATOR BOLZ: Young women participating. [LB184]

JOHN DITTRICH: I'm sorry. [LB184]

SENATOR BOLZ: Young women. [LB184]

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JOHN DITTRICH: I can't point specifically to young women because they're treated the same, of course, at school. So we have had one student that's gone on to, was a boy, that since this program was instituted went on to the engineering program at Colorado School of Mines that I'm aware of. I'm not aware of the other ones who have gone on with, I'm sorry, I've been off the school board for a little over two years because my kids were two years out of school, I feel school board members, you know, so I've lost a little bit of touch to tell you with the specifics of the program. But we have a really excellent record at our school of female accomplishment in academics and in sports, but in academics in particular. We've actually been trying to catch our boys up. [LB184]

SENATOR BOLZ: Very good. I like that. There's still disparity in women participating in STEM... [LB184]

JOHN DITTRICH: Pardon? Sorry, I have a little hearing loss. [LB184]

SENATOR BOLZ: There is still disparities in women participating in STEM careers so I appreciate your encouragement of the young women in your schools. Thank you. [LB184]

JOHN DITTRICH: Yep. They need that encouragement. And we just...I want to reiterate what Dan McGuire said. I keep up on the economics of the news in the country through many sources. And you see again and again that we're...as manufacturing is coming back in the United States, it's looking pretty hopeful now because of the natural gas renaissance and a number of other reasons. We're talking about in-sourcing. But what I read is the CEOs are saying we don't have the people with the skills to come into our companies. That's what's restricting us. I've seen it from the Financial Times, I've seen it in The Economist, I've seen it in The Wall Street Journal. It's a common thread. I see this program is exciting kids about sciences again. That's what this country really needs to come back. You know, we need to come back. [LB184]

SENATOR MELLO: Senator Kintner. [LB184]

SENATOR KINTNER: Thanks for coming today. Is this wind project in Elkhorn, is it primarily to generate power and then the side benefits are educational opportunities? Is that...am I right with that? [LB184]

JOHN DITTRICH: The power generated by the small wind turbine is really inconsequential. It's a...but what it does do is it's a real, real power generation that goes into the NPPD grid. So it's very realistic small-scale facsimile of what a full-scale 1.5 to 2 megawatt project is. So the students can go and see the data that's collected from this: wind speed, when the wind blows, temperatures, myriads of things that affect wind power efficiency and then just tie it in, use those things to help put a real world

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perspective on things they learn, which as we all know to a high school student are often pretty arcane. Why do I need this math? Why do I need this science? Why do I need to learn this? Well, all of a sudden they've got a tool they can play with, so to speak, that shows them how it can be used. And, you know, I lobbied for a program at our school which never quite took off, but there's a...for an industrial arts program. NPPD has a program where you build your own electric car and you race it in competition. And the kids have to engineer that darn car and race it, and it's industrial arts kids. And many schools are using it successfully. So that's another example of a tool that can be used to excite kids. I thought it would be a perfect fit for a wind generator, an electric car. It just never quite got off the ground. But it's an example of the wind turbine, what the wind turbine can be to these kids. And it also incents the teachers, which often needs some incentive to look at things new. We've had teachers go to Denver to National Renewable Energy Lab to learn about the Wind for Schools Program. So it gives them a lot of incentive to do something different and allows them to try to differentiate themselves from other schools. And, you know, we did that. [LB184]

SENATOR KINTNER: Is there a payback on this? Do you generate enough power at some point that it pays for itself? [LB184]

JOHN DITTRICH: You know, we never...I don't know whether we ever did a payback period. Dan McGuire and Ian Baring-Gould would be a better person to ask, you know, over a ten-year life span, for example, if we paid for the turbine. I believe the whole installation was in the high \$20,000 range, and the budget for that is on the back of the agenda that I referred to. But I think the school only put in about \$10,000, maybe \$8,000. The rest was raised from private sources and also USDA Rural Development which, of course, was public funds. But we went out of our way to raise money different ways. And Nucor, we're very proud of the fact that Nucor Steel, which is headquartered in Nebraska in Norfolk, which is in Madison County in my legislative district, and they were very cooperative. And the chairman of or, excuse me, the general manager and vice president of Nucor Steel came to our school to that dedication and just gave an extraordinary, stimulating presentation to the students about the need for science and engineer base and so on and so forth which his company needs. But he did us that favor so we really involved some pretty key private participants. [LB184]

SENATOR KINTNER: Okay. Well, thank you very much, appreciate it. [LB184]

SENATOR MELLO: Are there any further questions from the committee? Seeing none, thank you, Mr. Dittrich. [LB184]

JOHN DITTRICH: Thank you very much. [LB184]

SENATOR MELLO: Are there any further testifiers on behalf of LB184? Good afternoon. [LB184]

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JOHN HANSEN: Chairman. Good afternoon, Mr. Chairman, members of the committee. For the record, my name is John Hansen, J-o-h-n, Hansen, H-a-n-s-e-n. I am the president of Nebraska Farmers Union. We're the second largest farm organization in the state. We have 6,200 farm and ranch members spread across the state, and so we have members in all of these communities that serve these schools. And as a point of self-reporting, I would say that my farm is 12 miles south of Tilden and my kids did go to Elkhorn Valley. These school projects have had enormous pride in the communities, and the payback for these...these are small units. They are about 2.5 kW machines. That's about enough to run about a third of a household. So, you know, the payback on these is the schools probably will get their money back eventually, but it's not going to be anything very fast. The real payback is when the kids have the lights turn on and they say, hey, this is something I could do in my community so I can stay in my community. And so we're all about beginning farmers, we're all about trying to keep kids educated and in rural communities. And that's why we so strongly support community colleges in order to try to give our kids the kinds of tools that they need to be able to stay in rural communities. And that's an enormous long-term benefit. And so as we look at where we're at right now in Nebraska from about 2004 when we started building wind projects in the state to 2012, we have 457 megawatts in the state. And this next year we have three projects that are going to be turning soil, and when they're built, they'll add another 350 megawatts of wind. That will give us a total of about 807 megawatts for our state, and that will represent about 200 permanent jobs that are good-paying jobs. And I want our kids to be the kind of folks who are well trained and wanting those jobs and helping stay in rural communities. And so this program has been enormously effective. We are a national leader in this. And the benefit of this is that it fires the synapses, the kids' imagination come to life. They want to go to the community college. They want to go to the university. So we now have community colleges, we have the university so we have a very good integrated system that works from one to the next. And these are all about creating jobs and economic opportunities of the future. And so as I often say when I talk about the subject of wind and these issues, is that we have to remember that one way or the other we're fixing to go into the future. And the question is, are we sitting on the horse looking forward or are we sitting on the horse looking backwards? And depending on which direction we're sitting on the horse, the view is going to change and be significantly different. This is forward-looking funding and forward-looking bridge dollars until we figure out a better way to try to fund what amounts to, in my opinion, looking at it from the outside--and Professor Jerry Hudgins who will come up later can say in more detail--but it looks like to me out-of-pocket travel cost for a lot of the things of going out doing presentations, fixing machines. And when we get more small wind built in the state, we're going to have more small wind expertise. The schools now have the opportunity to hand off, whether they use local folks or whether they use the university folks to help fix their turbines when they're not working, we hope to get to the day where there's going to be plenty of small wind folks across the state to be able to do that repair work. But this has been a tremendous program. I don't know how you could

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possibly spend less dollars and get more bang for your buck than what we've done here. And I would, in closing, like to encourage the committee and invite you to come to our wind conference. I am also the cochair of the wind conference. We've been doing this for five years--November 13, 14, and 15--but you will be amazed at the size and the capacity of this industry, which is growing and taking root in our state. And with that, I would close and be glad to answer any questions if I may be able to do so. [LB184]

SENATOR MELLO: Thank you so much for your testimony, John. Are there any questions from the committee? Seeing none, thank you. [LB184]

JOHN HANSEN: Well, this was my first time before the Appropriations Committee this year, and so I was treated so well I will not come back. (Laughter) [LB184]

SENATOR MELLO: (Exhibit 13) Are there any further proponents for LB184? Seeing none, the committee did receive a letter of support from Keith Leckron, superintendent from Elkhorn Valley School District. That will lead us to any opponents. Are there any opponents to LB184? Seeing none, the committee did receive a letter of opposition from Robert Byrnes from Lyons, Nebraska. Are there any testifiers in the neutral capacity? [LB184]

JERRY HUDGINS: Thank you, Senator Mello and committee. My name is Jerry Hudgins, that's J-e-r-r-y H-u-d-g-i-n-s, and I'm the instigator of all those turbines going up at these schools to some extent. I am chair of the electrical engineering department at the university and also operate the Wind Applications Center. I would like to tell you a little bit about the activities that go on at the Wind Applications Center so you get an idea of what we're doing there. We certainly have helped with the programs at the schools in terms of assisting with installations of the wind turbines, from doing things like permitting, trying to get stamped drawings and designs for the schools in terms of foundations, towers, electrical work and so forth. We've helped participate in some of the installations. In fact, all the installations we've participated in that we've had also local dealers and installers help on some of the projects, and we certainly welcome that, happy to have them do as small or large a piece of that as they like. We also help coordinate maintenance on the turbines and actually do some of the maintenance ourselves when need be, which does require a bit of travel. One of the larger pieces of effort that we put into the projects, though, are in data acquisition and networking the systems together so that students have access to that data. Because as was mentioned earlier, that's a big part of their educational experience and so being able to have data and look at data from other turbines other places. And so we have tried to coordinate this not only across the state but other participants in other states. And so we look at this as actually a multistate endeavor, and I have colleagues at these other universities and their Applications Center and we stay in contact and meet once a year and share best practices and information. But I would stress, and I think has been stressed by several other folks, that really the key part of this entire activity is engagement with the

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K-12 students and teacher training. And one of the aspects that I didn't envision when I got into this was the need for continual teacher training. I just assumed we would train teachers on some kind of regular basis and teachers would be around in their positions for many years, but that turns out not to be the case. Teachers move more than I had known about, and so there's always new people in. Well, that's great because there's always a lot of excitement with new people coming into the school systems, but then there's new training required. So I see this activity associated with wind energy and in a broader sense renewable energy and how that feeds into earth sciences, economics, public policy, engineering, physics, etcetera, there's going to be a continual need to retrain teachers over time to keep them engaged and keep engaged with the students as they come along through the program. So to my mind that's the key activity that we're involved in and that's what we're trying to support. And that's what requires a lot of people time, people hours and travel to do that. One of the interesting aspects of the program that has occurred as a result, and I think Ian mentioned this, is sort of creating these technical centers in the states was one of DOE's goals. And what has happened through association in the Wind for Schools Program participation in various conferences, symposiums, meetings, giving presentations, talking to folks is we have become known as a place to go to, to at least get some information or find out who else to talk to, whether it's wind energy or other renewable energy projects or even regular energy projects. Like I get calls on nuclear energy now and other aspects of electrical energy generation to answer questions. So some of the things that we've been doing in the Wind Applications Center are things like providing first estimates on renewable energy projects for citizens of the state. They'll call in and say I hear you're involved with this Wind for Schools Program. I want to know about putting a wind turbine up in such and such a place or what would that cost me. And so we go through and have helped them do some sort of first order analysis of what's the wind resource, what is it going to cost to install a turbine. We've done this for some photovoltaic systems, solar cell systems. And so, you know, we're trying to help out in other ways as well. We also get involved in siting and doing data acquisition on meteorological towers where folks want to...communities are wanting to take data. We've done this for individual private citizens that have farms and ranches. We've done this for communities. We've helped them acquire this data, analyze the data for them, and provide that service to them so they can make decisions about projects. So anyway, that's my short pitch on kind of the things that we've been doing. I'm happy to answer any questions that you may have. Thank you. [LB184]

SENATOR MELLO: Thank you, Dr. Hudgins. Is there any questions from the committee? Seeing none, thank you. [LB184]

JERRY HUDGINS: Thank you. [LB184]

SENATOR MELLO: Are there any further testifiers in the neutral capacity? Seeing none, Senator Haar, would you like to close? [LB184]

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SENATOR HAAR: Thank you. My first career was as a chemistry professor. And actually I got into that because of my high school chemistry teacher. I got all excited in that class and that was the first part of my career. That's really what Winds for Schools is about. It's a hands-on project that gets kids excited and gets kids motivated. And as we heard the Elkhorn Valley district how that can ricochet across the whole community, not just the kids who are taking the coursework. The second point I'd like to make is that after water, wind is probably our greatest potential in this state. And it just seems that we're, you know, there's going to come a time...there will come a time when we utilize that potential and the sooner the better, because it's our benefit in this state. Someday, instead of buying coal from Wyoming and paying their income and property tax, we will be using our wind energy in this state and exporting that. And then just briefly the third point, this kind of program involving the technology that it does requires a facilitator to help schools get set up, to help schools fund what they're doing to help find the funders, and then as we heard, to actually help construct. They send graduate students out to help construct and maintain these wind turbines. To me it seems a win-win program all the way around. It's working well. And with that, I've probably talked enough. It's a great program. [LB184]

SENATOR MELLO: Thank you, Senator Haar. Are there any further questions from the committee? Seeing none, thank you, Senator Haar. [LB184]

SENATOR HAAR: Thank you. [LB184]

SENATOR MELLO: And that will close today's hearing on LB184 and that will take us to the end of our bill introductions for the day and move us to our first agency hearing on Nebraska Education Television...Telecommunications. [LB184]