Learning from Chicago

Creating Poly-technical Learning Pathways to High Quality Jobs for Australian Aboriginal Communities

Members of the Australian Delegation, CLCR Representatives and Australian Consulate Staff in Chicago

A Report from the Delegation of Aboriginal Representatives and the Australian Education Union to Austin Poly-technical Academy, October 6-16 2011

Indigenous Stock Exchange (ISX) Australia/ Center for Labor and Community Research (CLCR), Chicago

Report written by Peter Botsman, October, 2011 – March, 2012

For Lesley "Buddy" Briggs who saw the vision

and Chaseley Walker, Torres Hughes, and the young African American and Australian Aboriginal leaders of tomorrow.

"Advanced Manufacturing plus World Class Education equals Sustainable Communities" – Center for Labor and Community Research, 2009

Preface

Our trip to Chicago was a learning experience. We encourage you to read this report and to help us to implement the many ideas that will arise from it. It is most important that Aboriginal communities learn from the experiences of our brothers and sisters in Chicago. We look forward to Erica Swinney's visit to Australia and to the development of more visits to internationally significant areas as we strive to make education more effective for our people. We particularly want to thank Dan Swinney and his colleagues at the Center for Labor and Community research for their hospitality and support.

Bennett Walker
Kuku Yalanji elder

Paul Briggs
Yorta Yorta elder

6 March, 2012

Table of Contents

Overview

- From October 7-14, 2011 a delegation of Australian Aboriginal elders, representatives of the Northern Land Council and the Australian Education Union were hosted by the Centre for Community and Labor Research (CLCR). In conjunction with CLCR the trip was organised by Australia's (ISX) Indigenous Stock Exchange. The week involved policy discussion, an overview of the Chicago economy and society, a history of African American communities, analyses of the state of manufacturing and tours of cutting-edge Chicago manufacturing companies, and two full days at the outstanding Austin Poly-technical Academy (www.austinpolytech.org). 16 year old Chaseley Walker, a member of the Kuku Yalanji community, was hosted by Austin and shadowed students through a regular daily cycle of classes including participating in calculus, computer programming and machining. This report, **Learning from Chicago,** is about the findings, outcomes and learnings of the Chicago visit.
- The visit to Austin Poly-technical Academy demonstrated the importance of international learning missions about strategic matters that will affect all Aboriginal communities. The principal focus was direct skill acquisition for at risk communities and the importance of focusing on skill gaps in high end manufacturing industry. The mission to Chicago will be the first of several study missions conducted by the ISX and CLCR It will include a visit to the San Francisco Bay Area where a similar approach is being implemented, the Mondragon Basque region of Spain and Emiligia Romagna in Italy in 2012.
- The vision of the Chicago community is that manufacturing is the basis for an advanced and sustainable society. "Manufacturing is the only sector that can build a broad-based middle class and significantly reduce poverty. It is the only sector that can solve the environmental crisis. It is a sector that can provide careers that build human capacity during work as well as provide a high standard of living outside of work.
- The model of poly-technical education has been influenced by several factors including:

  -a rigorous analysis of international experiences of successful industry development including in the Mondragon and Emilia Romagna regions
  - the catastrophic decline of manufacturing in the United States in the 1980s and the 2000san understanding that high quality manufacturing industry

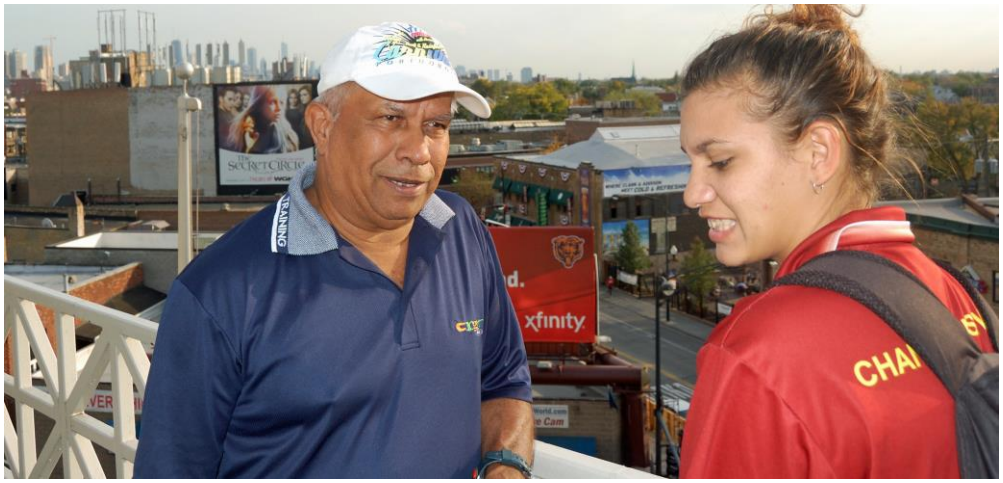
which survived the crisis is now a growing and fruitful area of employment in the Chicago region
- an understanding that traditional models of education and training are failing the needs of high level manufacturing industry as well as students in minority and underserved communities and even those in traditionally well resourced schools
- an understanding that for every one manufacturing position five other positions are created in ancillary industries
- an understanding that the support of high level manufacturing cannot be left to chance and must be supported by a combination of industry and community leadership
- an understanding that polytechnical education is important for minority and under-served communities because it allows them to leap frog blockages and problems within the traditional employment and education model and potentially catch up in terms of lost historical opportunities and
- the view that the polytehnical model offers opportunities for minority and underserved communities to own wealth creating businesses that actively enhance economic development as opposed to owning more passive assets such as land, houses and in minority areas.

A Manufacturing Renaissance

- Educational reform from within the system, parental reform movements, pedagogical leadership, educational reform around excellence, community agitation on its own from outside are not enough to bring the results that are needed to ensure Aboriginal or any other students move into high end industry with high paying jobs. The **Chicago Manufacturing Renaissance Council**, formed in 2005, links 65 manufacturing employers to the Austin Polytechnical Academy and **CLCR** acts as a driving force and visionary organisation which directly facilitates the poly-technical education strategy within the school.
- For education initiatives to be successful a **Renaissance Council** model should be formed in Aboriginal communities and regions that links industries, skill gaps and schools. Such groups have to be formed to facilitate pathways between the Aboriginal workforce and skill shortages in high end professions. This model is driven by the real action of linking

high end industry, jobs and education. The approach emphasises ‘learning by doing”. The larger group problem solves when there are blockages and promotes and strengthens the poly-technical education model throughout the spheres of influence of the constituent members..**It should be noted that the Clinton Global Initiative has already made a commitment to support a National Manufacturing Renaissance Campaign involving CLCR in 2011-12. The creation of renaissance grups with an Australian Aboriginal focus would supplement this and contribute to the development of one of the most under-served communities in the world**

- The elements of a regional Renaissance model already exist in Australia but there needs to be a strong focus on: identifying industry partners, creating linkages to schools, identifying skill gaps, focusing on the appropriate training models and partnership arrangements that need to be tailored to each region. The potential beneficiaries are students, individual companies, communities. The Renaissance model should also be of interest to Federal government departments, State regional development agencies, State education departments, TAFE, high schools, projects like Our Generation which need to give substance to employers’ commitments to provide meaningful employment to Aboriginal communities.



Kuku Yalanji elder Bennett Walker and his grand-daughter Chaseley Walker with Chicago skyline

Renaissance groups could consist of local employers, local education representatives, city representatives, Indigenous educationalists, civic workers and leaders. They should meet monthly or bi-monthly to trouble shoot problems, exchange information and report on progress in the region.

CLCR – Big Vision, Acting and Intervening within the School

- The other component of successful manufacturing development and educational outcomes is the role of the CLCR. CLCR is not a think tank, not a community organising group, not a training organisation, not an African American advocacy body but a dynamic combination of all of these things. It acts and works inside and outside the school.
- The Austin program was not an over- night phenomena but really came about through over twenty years of thinking about solving the problems of under-served inner city African American communities against a background of "white flight", industry restructuring, changes to manufacturing technology and the gradual mismatch of educational outcomes and industry expectations. The building blocks in Australia for an Aboriginal educational partnership with CLCR are the Kaiela Institute and the Academy of Sport, Health and Education in Shepparton, Yalanjiwarra Aboriginal Corporation, Balkanu and the Cape York Institute on Cape York, the educational initiatives being developed by the GARMA think tank in Arnhem Land., Goolarri Media Enterprises and the Kimberley Institute in the Kimberley, the Ngarda Ngarli Yarndu foundation in the Pilbara and several other initiatives.
- CLCR is partially a think-tank but in the terms of this report its most effective role is as a facilitator and coach of the program within the Austin Polytechnical Academy. It also raises funds to ensure that the public school program has excellent facilities and pedagogy. Aboriginal communities are served by organisations like the Kaeila Instiute, the Kimberley Institute, the Cape York Institute and many ngo organisations like Yalinjiwarra Aboriginal Corporation., Ngarda Ngarli Yarndu Foundation. But it will be necessary to create specialised coaching groups that are lead by Aboriginal leaders along the CLCR model to create the outcomes that are sought in Chicago.
- The tasks that need to be performed in key Aboriginal regions are:
  - undertake a major study of skill gaps in industries, companies and general employment
  -build a Renaissance group based on companies that are directly challenged by skill gaps
  - work with industry partners to create a partnership which creates direct links in Years 10, 11 and 12 through training, work placements and holiday work programs
  -work with educational organisations to create

comprehensive program of skill acquisition and general education that results in Year 12 graduates being offered a range of options including employment and higher education through local employers.

- The strength of CLCR is that it is never satisfied with the current possibilities and strives to ensure that the appropriate design, pedagogical structure, industry links, educational personnel are continuously being improved. This has included:
  - campaigning and implementing state of the art technical facilities in the high school that are directly linked to local employment outcomes,
  - ensuring the appointment of high quality teachers and administrators including teachers and head masters and
  - working to ensure that teachers are appropriately renumerated and if necessary raising funds for salaries and payments[1].

  In Australian Aboriginal communities it is essential that Aboriginal leaders play the major leadership role in these arenas. It should be noted that CLCR fund-raises and coordinates special needs, hires the coordinator of the poly-technical education program within the school and oversees the hiring and firing of teachers and the standards of the program with the school administration.

Australia

- The poly-technical model was of great interest to the YortaYorta leaders Paul Briggs and DjarranWhyman and the Yandewarra leader Bennett Walker and it is expected that these two regions will play a lead in evaluating the model. Shepparton will be the area in which the initial focus of the work will occur. *Made in Shepparton* is the title of the history of the iconic Shepparton manufacturing firm J Furphy & Sons[2]. This ambition to make things that reflect the local culture is also the vision of the Yorta Yorta community. One of the challenges of the ***Learning from Chicago*** model is to investigate how young Indigenous young people can connect with the ongoing tradition of manufacturing in the Goulburn Valley.
- The areas of Australia where the poly-technical model has

[1] CLCR has raised funds from JP Morgan Chase, the Chicago Community Trust, the Field Foundation, the Polk Brothers Foundation, the Nathan Cummings Foundation, the Surdna Foundation, and the Kendeda Fund and other organisations for Austin.

[2] John Barnes, **Made in Shepparton The History of J. Furphy & Sons 1873-1998,** 1998, ISBN 0-646-36179-1

great relevance and applicability are:
- the Shepparton region where the YortaYorta leadership, Paul Briggs and the Kaiela Institute have a leading role to play,
-the Cape York region where a leadership role will be played by the Yandewarra Aboriginal Corporation, Balkanu and the Cape York Institute,
the Pilbara - where a leadership role will be played by the Ngarda Ngarli Yarndu Foundation,
-the Kimberley where the Goolarri Media Enterprises will play a leading role;
-the Northern Territory particularly those areas negotiating agreements with gas and mining companies in these areas a leadership role will be played by the Northern Land Council and
- Arnhem Land where a leadership role will be taken by clan leaders and the GARMA educational think tank and
- the Shoalhaven and National Capital regions of New South Wales where Habitat Personnel is playing a leading role in the development of jobs for the Yuin, Ngunnawal and other Aboriginal and Torres Strait Islander people in the region.

Next Steps

- There is strong support for the poly-technical learning model in Aboriginal Australia and the US. However there is a need to develop the leadership model, capacity and the particular Aboriginal communities and schools in Australia where it can take hold. Consensus needs to be established, awareness needs to be built up and work across the two countries needs to be undertaken. Phase 1 of the project, from 2011-2012, represents a development phase in which a significant amount of work will be devoted to ensuring that regional Aboriginal and industry leadership is formed, appropriate schools are targeted for the project, alliances are built. Also appropriate sponsors and partners, who will really own the project, will need to be identified and established. The Clinton Global Initiative has made a commitment to support the poly-technical model in under-served communities in the US, with this report the ISX/.CLCR is developing a concept proposal that take the initiative into Australian Aboriginal communities which are amongst the most under-served communities in the world. The first phase of the project would allow a process of planning to occur and it is expected that the next phases of the project will be supported in Australia by a wide range of

partners and supporters. Phase 2 2012-16 would involve the implementation of a poly-technical curricula in Australia. Phase 3 2016-2020 would involve establishing life-long learning pathways and relationships with employers and schools to entrench and continuously improve the model and relationships.

- The ISX and CLCR have formed a partnership to promote poly-technical education as a direct route to high paying employment in minority and under-served communities. The job of the ISX in Australia is to foster relationships with Aboriginal regions and organisations that want to emulate the poly-technical model and work with Aboriginal leaders to ensure that the approach is rigorously implemented and to promote exchanges of students and staff between Australia and the USA. The job of CLCR is to act as a fiscal sponsor in the USA, and to facilitate relationships and to provide guidance to the ISX and regional bodies about how to implement poly-technical education models, as well as implementing exchanges with students and staff from the USA to Australia and facilitating joint fact finding and learning missions.
- **It is important to emphasise the contribution of CLCR in supporting this mission and there is an ongoing debt owed to them for their painstaking and supportive work. On the Australian side the Chicago visit was organised quickly, simply and efficiently. It involved no committees, no bureaucracy and no great expenditure of funds. Using its national network, the ISX created an open invitation that was taken up by several Indigenous representatives and leaders. Indigenous participants organised their own funding, paid their own way and met their own expenses. Those who could not take part in the visit can learn from the report and the verbal accounts of the people who participated. This is the preferred methodology of the ISX and future missions be organised on a similar simple, non-bureaucratic and cost effective basis.**
- One of the outcomes of the visit to Chicago was the warmth of the friendships which started to be formed in only a couple of days in Chicago between the Indigenous representatives and their African American counterparts. It was clear to all that each side of the friendship had something positive to contribute: Aboriginal Australians knowledge of land and culture and certainty about their identity was something which intrigued African Americans who had undergone many generations of cultural alienation from their roots and the way in which African Americans

had been able to foster a new identity and to work with the institutions of mainstream America was something which was of great interest to Aboriginal Australians. For Aboriginal Australians, who represent 5 per cent of the Australian population, there was immediate comfort and security in a predominantly African American school. Even an under-served school in a tough urban environment had facilities and characteristics and a sense of family that most Aboriginal Australians have never enjoyed at school. There is much more to learn and share between the two communities.

Ongoing Work

- The inclusion of 16 year old Chaseley Walker in the delegation was an important ingredient in the mission's success. In future we will always endeavour to include young Aboriginal people and their counterparts in missions, reports and exchanges. Chaseley attended classes at Austin and was a very important reason why there was a solid connection between the two communities. Chaseley was excited by her experience at Austin and expressed a wish to come back in 2012. Chaseley immediately understood the orientation of the Austin program, particularly the connection between learning calculus, computer programming and working with a CNC machine to attain NIMS (National Institute for Metalworking Skills) [3]credentials. Any concerns about cultural differences were overcome by Chaseley's enthusiasm to learn and her immediate response to the quality of education at Austin. Following Chaseley's lead CLCR and the ISX will work with their partner agencies and Aboriginal leaders to significantly increase the number of Aboriginal high school students with high level manufacturing skills. This follows the Clinton Global Iniative's commitment to support CLCR and the Chicago Renaissance Council in doubling of the annual rate of NIMS machining credentials in Illinois. Following this lead the ISX will work with CLCR to increase the number of Australian Aboriginal students attaining mathematical and

[3] National Institute for Metalworking Skills (NIMS). These credentials are recognized around the country, and a person with such a credential can easily secure employment with starting wages at $15.00 an hour and quickly go up from there. In many companies are more important than a high school diploma as they prove competency. In a presentation recently given by Aarti Dhupelia, Director of CPS College and Career Preparation, CPS graduates in 2007, ages 18-24, earned on average $11,439 annually. Nationally, in the same year, young people with a high school diploma, between the ages of 18-24 earned on average $24,557 annually. A student graduating from APA with NIMS credentials earning $15 an hour stands to earn $28,800 annually not including overtime

computing credentials at the end of year 12.

- CLCR/ISX will facilitate a visit by Erica Swinney to work with high schools and communities in Australia. Ms Swinney will address practical issues of installing poly-technical curricula in high schools. The ISX and CLCR will call for hosts and sponsors for Erica's visit in the early period of 2012.

- ISX/CLCR will facilitate student exchanges with students from Austin to broaden their understanding of geography and to give them educational experiences with Aboriginal Australians that broaden their cultural understandings and life experience. This must dovetail with the Austin curricula.

Introduction: Building Tomorrow

People around the world must make their own tomorrow. Every peoples' path is different. Yet every path is the same.

Aboriginal people made strong tomorrows for 40,000 years. It is becoming more understood that the 390 Australian Aboriginal language groups and nations lived very active, cleverly organised lives. It must have been this way to survive 40 millenia. The collection of food and sustenance, viewed through our modern prism, seemed an onerous activity; but it required a unique relationship with land, and from this stemmed higher cultural practices. For many Aboriginal communities life was highly spiritual. Much time and effort was spent learning and passing on knowledge and wisdom.

The coming of Europeans and other permanent settlers to the Australian landmass severely disrupted the Aboriginal economy and society. Because the Aboriginal culture is an oral, mind culture, the new comers did not understand the nature of Aboriginal society. Because nothing was written down, many settlers could not see the sophisticated nature of the Aboriginal oral and spiritual culture. The effects of disease, invasive, forced settlement and the clearing of the land forced all Aboriginal communities into a defensive, artificial and castrophically restricted lifestyle. In the defence of traditional life, many thousands of Aboriginal warriors died fighting against the new settler society.

Over 200 years the war between the two cultures changed and dissipated. The dominant culture drowns out Aboriginal culture and renders injustices invisible. However, many are beginning to understand the sophisticated nature of Australian Aboriginal culture and its seminal importance for a prosperous Australian future. Though the lessons of the past are always in the present for Aboriginal Australians, it is also recognised that Aboriginal communities *must now make their tomorrows* in a world that is very different from pre-settler society. The question has become*: how can Indigenous peoples' make strong tomorrows, like yesterday, in this 21st century global world in order to keep culture, knowledge and society strong?*

Prospering in the 21st century

Aboriginal people have not prospered since the advent of European Australia. The Aboriginal population at the time of the First Fleet was between 800,000 and 2,000,000. Now, though the Aboriginal population is young and growing, it numbers less than half a million. Only since 1967 have Aboriginal people been recognised as citizens and allowed to vote and enjoy the full civic, economic, social and cultural rights of other Australians. It has only been since 1967 that Aboriginal Australians have been able to participate as economic citizens. Now a lot of catching up has to be done and a lot of patching up has to be done to generations of young people who have never known the prosperity of traditional life or the benefits of contemporary modern life.

Perhaps the most important question is: *What are the means through which Aboriginal people can prosper and foster language and culture in the 21st century?*

To answer this question requires much thought and wisdom.

All things being equal, experts frequently debate why one people prospers and others do not in the 21st century economy. In general, wealth and advantage flow to those who create products that are indispensable to the majority of the world's population. But there are many variations on this theme.

Australia as a whole is trying to make its way by selling the raw materials that go into the production of more elaborately transformed products in China, India, Japan, Europe and the USA. Many of these raw materials come from Aboriginal land. For example, iron ore, gold and gas and an array of other minerals from the Pilbara, the Kimberley, South Australia, Queensland and the Northern Territory, bauxite and alumina from Arnhem Land all flow into products that are transformed into the building blocks of the world economy. Australia derives many billions of dollars from the sale of these raw materials. In addition the prosperity of contemporary Australian society in the South Eastern States was created through the use of Aboriginal land and resources throughout the 19th and 20th century. Aboriginal people have never been properly compensated for the loss of their resources and the use of their resources by others.

While the battles for economic justice go on, the truth is that what has been lost can never be properly compensated and where attempts have been made to do so in just monetary terms as royalties, the whole process can become a curse for Aboriginal peoples. Without the capacity to live on their own lands and work, Aboriginal communities are effectively being paid for their redundancy as a people.

In this context, it should not be a question of the past but a question of investing in the future: *where should compensation payments and royalty be invested? Where should action be marshalled?* In answering these questions it is useful to look at the experiences of others who have been through colonialization, dispossession and exploitation and have come through the experience to prosper and develop. It is hard to find examples where the full-on impact of Western colonisation in the 19th and 20th century has not radically disrupted pre-colonial societies. But, in every case, there are successes and failures to learn from.

A common pathway to prosperity is the same as it was in traditional Aboriginal society. It comes from rigorous knowledge and learning. But in order to preserve land and culture it is not just a matter of obtaining rights under Australian law. It must also involve understanding the way wealth is created in the world.

Just as in traditional society, practicing high levels of law and culture required a mastery of the land, so too today building a strong tomorrow means that Aboriginal communities must master and understand how wealth is created in the world economy. To do this involves travelling to other parts of the world and learning from the pathways that other people have made to build strong tomorrows.

The Chicago Case Study

"Sweet Home Chicago" has a particular resonance. When Robert Johnson first penned the phrase in the early 1930s, Chicago was a hoped for refuge away from the racism and poverty inherent to the Mississippi Delta. It was a place to build a new tomorrow. In her Pulitzer Prize –winning book on the great migration northwards, *The Warmth of Other Suns*, journalist Isabel Wilkerson says that the migration from the South to Chicago involved "six million black Southerners [moving] out of the terror of "Jim Crow" to an uncertain existence in the North and Midwest."

Leading the promotion of Chicago was the *Chicago Defender* founded by Robert Sengstacke Abbott in 1905. "Most southern migrants got their first glimpse of life in Chicago in the pages of the *Defender,* glimpses that made the city a striking symbol of the migration even for those moving elsewhere. Setting departure dates and showing pictures of the best schools, parks, and houses in Chicago next to pictures of the worst conditions in the South, the *Defender* stirred migration fever across much of the South. Southern cities banned the newspaper and exacted serious penalties on anyone found distributing or reading it".

Chicago Defender Newsboy 1942

Between 1910 and 1930 two million African Americans packed up their scanty possessions and made the long journey to Chicago from the 14 Southern States especially Mississippi, Alabama and Louisiana, seeking industrial jobs and a new, free life. But it was by no means an easy-ride, race riots in Chicago in 1919 had to be quelled by 16,000 troupers as white Americans reacted to the influx of African-Americans seeking a new life. A second great migration occurred between 1940 and 1970 when a further five million people journeyed to Chicago. During the second wave of the Great Migration (from 1940–1960), the African-American population in Chicago grew from 278,000 to 813,000. The South Side of Chicago became the black capital of America.

Chicago Guardsmen questioning African American 1919

It was by no means easy making the transition from the agrarian South to the industrial North. African Americans were restricted to the South side of Chicago, a racially designated and segregated area. This is one of the reasons the so-called "black belt" region started. When blacks moved

into other non-black areas, they were often confronted with racial hostility and brutality. To date, the South Side remains the core of the black community, although the neighbourhoods have expanded beyond the original borders, with significant populations on the west-side of Chicago and the southernmost suburbs.

Despite the many obstacles that confronted them, African-Americans made substantial gains in industrial employment, particularly in the steel, automobile, shipbuilding, and meatpacking industries. Between 1910 and 1920, the number of blacks employed in industry nearly doubled from 500,000 to 901,000.[5] After the Great Depression, more advances took place after workers in the steel and meatpacking industries were organized in labor unions in the 1930s and 1940s, under the interracial Congress of Industrial Organisations (CIO). The unions ended the segregation of many jobs, and African Americans began to advance into more skilled jobs and supervisory positions.

African American housing Chicago 1925

As the noted African American historian Timuel Black told me in 1991, inner city Chicago was a great place to live for many who had made the long journey from agrarian poverty. It was a humming community and many people lived in high quality housing. The "black renaissance" of Chicago took place as African Americans contributed to the development of an urban culture reflected in the visual and performing arts, literature, and music. Chicago became a pioneering center for recording and performing music. The Chicago Defender promoted black fine arts and publicized the works of artists and the institutions that supported and nurtured their creativity. The South Side Community Art Center and the New Deal's Works Progress Administration nourished artistic creativity and organized art workshops for black citizens.

However any achievements that were made after the depression and world war were threatened by the mass closure of industry in the Chicago inner city. This cut off the employment of many African Americans and the infamous ghetto began to develop. At the same time many great neighbourhoods were bulldozed by urban developers. On top of this the 1980 and 1990s brought another series of challenges to the African American community. The backbone of African American employment was manufacturing and the giant American manufacturers began to take advantage of the cheap labour south of the border in Mexico. The steel industry which had its heart in Chicago closed dramatically and hundreds of thousands of jobs were lost.

The Ghetto: Proud Buildings Reduced to Rubble by Urban Developers

As some people argue about the current welfare period of Australia, in many ways the past thirty years have been amongst the toughest period for African Americans in Chicago.

Why is Austin Poly-technical Academy important for Aboriginal *Australians*?

The significance of Austin Poly-technical Academy is that it is a contemporary attempt to get back up from under the problems that have faced the minority communities of Chicago and workers in general over the past forty years. It attempts to place students at the top rather than the bottom of the global economy and to ensure that the community as a whole is able to make its own destiny rather than being at the mercy of the icy winds of economic change.

It is hard for an Australian to appreciate the change and mobility that was required of the American workforce over the past four decades. Industrial cities the size of Australia's capital cities were closed down. Workers who had lived for many decades with secure job tenure were made redundant. Skills that were once valued became useless. Furthermore there was little assistance from the State to help individuals and families make the transition into new work, new regions of the country and into new communities.

At the pinnacle of the changes were African American and minority workers. Often they were the last hired and first fired in many industrial contexts. Education and training was lacking and so it was extremely difficult to make the transition to new jobs and new skills. The public school system failed African American and minority populations with literacy and numeracy levels well below national standards.

The city of Chicago had seen the rise of a black middle and upper class. Despite all the problems of racial segregation and prejudice it produced several leaders including Harold Washington the first African American Mayor of Chicago, leaders such as Jesse Jackson and Carol Moseley Braun and, of course, the first black President of the United States, Barrak Obama. These leaders did not come from no-where. Over the twentieth century African Americans in Chicago climbed the ladder of prosperity and made enormous contributions to American culture, economy and society. Leaders stood on the shoulders of others who had come before them – people who had done the hard yards of organising, developing and overcoming the problems of life in a segregated city and country.

But the maelstrom of deindustrialisation took all by surprise. At the heart of the maelstrom was the Center for Labor and Community Research (CLCR). Situated on the West Side of Chicago it struggled to analyse the problems that were occurring around it and for three decades it worked on different responses to the crisis. Because it was centred in the midst of the crisis CLCR developed a unique practical orientation that was about trying different approaches to counter the job and skill losses associated with deindustrialisation. In the early 1990s in response to company closures it organised amongst workers to secure company buy outs or to transfer ownership of retiring manufacturers to others who would

continue to stay in business rather than close down. CLCR was no university funded theoretical palace. It's activities were centred in labour and community life and it had to earn its funding by gaining the support of city departments, foundations, unions and employers themselves. If it was not effective in its own activities then it too would become redundant.

CLCR knew even in its early days that it had to create new jobs, new industries and new tomorrows for the people of Chicago. Furthermore Chicago was going through what many other cities in the USA were also going through. Together with a range of different actors it began to search globally for paradigms and models that could be enacted in Chicago. CLCR's Director Dan Swinney came to Australia in the 1990s and again in the 2000s. The work of securing worker buy outs of factories that were going to close made CLCR very attuned to the cooperatives of Spain in Mondragon and the high quality manufacturing region of Italy at Emiliga Romagna. This led in turn to the formation of the Chicago Manufacturing Renaissance Council in 2005. The Renaissance Council was a leadership group that would spearhead the changes that needed to be made in the organisation of the Chicago economy to enable new industries to flourish.

In 2001 CLCR prepared a major study of manufacturing workforce development in the City of Chicago. The report found that there were not skill gaps but skill chasms, and not only that, because there was no capacity to develop the existing workforce, existing manufacturing jobs were also at risk of becoming redundant. So in the midst of deindustrialisation when tens of thousands of jobs had been lost, CLCR found that existing job opportunities could not be filled. Local manufacturers overwhelmingly said they could not find workers with the skills they needed at the same time as thousands were out of work including 86,200 disconnected young persons aged between 16 and 21. Today in the United States, there are 13 million people unemployed, yet 3 million jobs—typically higher skilled and higher paid—unfilled.

The findings of this report fuelled the CLCR stalwart's determination. The next set of questions they began to ask was: how can those who had been made redundant or who were disconnected from the workforce be made job ready? CLCR began to adopt the concept of skill standards – namely the compilation of skills, or behaviours, required to adequately perform a particular specified job for multiple employers. It distinguished between knowledge and competency. As they argued "Think of fans that have a great deal of theoretical knowledge of basketball but don't possess the skill or competency to play in the NBA. The gold standard of manufacturing skill standards is a procedure that tests both knowledge and competency. From the student point of view the most valuable credentials are portable, that is multiple employers recognise them. .. The challenge is to be sure that

standards developed by a broad group still are specific enough to assure that those meeting the standard can really do the job."

CLCR further defined the benchmark that it wanted to see in training and work education. The training had to have strong ties to the client manufacturing community, it had to teach to competency standards, it had to follow students as quality control and self-monitoring and the training organisation had to be flexible in its own right.

Out of these standards the Austin Poly-technical Academy was born. CLCR came up with its own significant formula: "Advanced Manufacturing plus World Class Education equals Sustainable Communities".

In its 2008 report on the formation of Austin, CLCR noted "Austin represented a distinct departure from the traditional school reform movement. Generally the school reform movement can be divided into four trends: * those whose focus is principally on the quality of jobs- wages, benefits and conditions of work- for educators and administrators within the system in one way or another; * those who seek greater community and parental involvement and control of the educational system; * those preparing students for the best jobs and careers they think are possible in the current declining society; * those with a deep and legitimate critique of economic and social trends in our society and who want to insure that the next generation includes critical thinkers , effective advocates for change at all levels, and those who will refuse to become passive cogs in the wheel of society. Each has their strengths ..and all are required, but not sufficient. What they have in common is that none go far enough in promoting or being linked to an economic development strategy that addresses the root causes of persistent poverty today. They lack an effective connection between education and a positive vision of economic development for our communities". [4]

Here is a major problem of educational reform in Aboriginal communities in Australia today and despite the differences in context, it is important and necessary for Aboriginal leaders to absorb the Austin model within a schema of economic development. This is what is so badly needed in Aboriginal regions across Australia. For unless a clear economic strategy is articulated then education and training will not lead to an improvement in the lives of all but only some and only some in certain contexts. In addition the deep thinking behind the Austin model is essential for Aboriginal leaders and communities to understand. In doing this they will also be learning what much of Australia must understand and that is that the resources that are in the ground in our country are

[4] CLCR, New Directions in School Reform in Chicago – Austin Poly-technical Academy, p. 6

finite. We must be investing in the capacity for new industries and new tomorrows if our communities are going to be sustainable into the future.

■ Garfield Park Conservatory launches plant rescue PAGE 5

FREE

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STREETbeat

LORETTA A. RAGSDELL ASKS:

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■

Austin neighborhood

DAVICIA CONLEY

"What makes me happy and gives me complete joy is just waking up and seeing what God has blessed me with, and my two beautiful sons. That's it."

BLANCA RUIZ

"The school (Austin High) and how they actually helped my son to get better grades. The attention the teachers give my children in the classroom makes me happy."

See STREETBEAT, page 12

ONLINE AT *AustinWeeklyNews.com*

Nursing home cited for health, safety violations

Since original complaints, Illinois Deptartment of Health says facility has corrected 'deficiencies'

By ELLYN FORTINO
Austinitalks.org

Despite numerous safety and health citations, Columbus Manor Residential Care Home will not shut down anytime soon, nursing home administrators confirm.

Columbus Manor, 5107 W. Jackson Blvd., was not in compliance with 11 federal requirements for nursing homes that participate in the Medicaid program, according to an Illinois Department of Healthcare and Family Services notice that appeared in the Chicago Sun-Times Sept. 14.

But the department as of Sept. 22 says the facility is now in the clear after correcting those "health deficiencies."

The violations – based on surveys the state health department conducted at the facility in April, July and August – involved resident rights, quality of life issues and the physical environment, among other problems.

The nursing home would have faced termination from the federal Medicaid program if its more than 10 health citations were not rectified by Oct.

Elizabeth O'Brien, an administrator at Columbus Manor, had no comment Tuesday on the cleared citations.

There were 112 residents at the facility as of August, according to the health department, many of whom live there because they qualify for Medicaid, said Melaney Arnold, a spokeswoman for the Illinois Department of

See NURSING HOME on page 4

Aussies come to Austin

Delegation visits Austin Polytech, looks to mimic manufacturing school's model

By LA RISA LYNCH
Contributing Reporter

LA RISA LYNCH/Contributor

FOREIGN EXCHANGE: *Chaseley Walker sits in on a calculus class Tuesday at Austin Polytech, 231 N. Pine. The 16-year-old teen was visiting from Australia.*

Chaseley Walker seemed like any other high school student walking the halls at Austin Polytechnical Academy.

She went to English and Spanish classes, listening intently; hauling her book bag around like most students do. But Walker's not enrolled at the West Side high school.

Walker was part of a delegation of 11 Australian Aboriginals in town to learn about the school's manufacturing-focused curriculum. Aboriginals are indigenous people living in Australia long before English settlement in the late 1700s.

Austin Polytech, 231 N. Pine, has partnered with several companies to help educate students in finding future manufacturing jobs. The group's seven-day trip included a tour of the school, its manufacturing partners, and to do some sightseeing.

Walker, 16, the only teen in the group, shadowed APA students to experience the rigors of attending a school focused on manufacturing. A student at Mossman High School in Australia, Walker described the experience as "positive." And she couldn't wait to get her hands on some of the tool casting machines located in some of the classrooms. This was a departure from her school's routine of reading, writing and arithmetic.

"The programs in engineering are way better," said Walker, who helps her grandfather, Bennett Walker, in his auto shop. The elder Walker was also among the delegation.

"Coming over here was actually a good experience, because you get to see how people from other

See AUSSIES on page 4

The Age of Artificial Intelligence

The global economy and society is undergoing a profound set of changes as significant as those of the industrial revolution and as radical in effect as the impact of the computer. Some argue that the new age will be like no other. The concept of a Singularity Age[5] is one which is so profoundly different from our own that it can hardly be conceived

The so-called cyber-mental age involves the evolution of artificial intelligence in machines and tools. It is revolutionising the way work is done and it is one of the ways that mature industrialised countries like the USA and Australia are building their competitiveness in manufacturing and services industries. This new age requires workers who can use and combine data that in turn drives machines to make innovative products.

Yorta Yorta elder Paul Briggs and Henry Winzler – Robotics at Winzler Gear

Thomas Friedman, in a lecture for the Centre of Globalisation Studies at Yale University, 24/10/2011, said three interesting things: that tasks and jobs were being automated that could never be conceived before, that even graduates from elite Ivy League institutions like Yale and Williams were graduating without the likelihood of a job and that

[5] The term derives its meaning from the theoretical singularity that exists at the centre of black holes – a point of mass so infinitely dense that the laws of physics as we know them cease to exist and all hell breaks loose. In its technological sense, then, the Singularity refers not only to the moment when robots are smarter than humans, but also to the immense and utterly unpredictable consequences such a breakthrough would signcal. Sam Bendinelli, "Striving toward the Singularity Glimpsing the Future at th e2011 Singularity Summit", The Yale Herald, Oct 21, 2011, p. 10

information was now available and universal in the most remote locations. All of these things were most relevant to the Australian Aboriginal delegation to Chicago.

Justin Mullaey, AEU, Bennett Walker, Chaseley Walker at Precision Arts, Broadview Illinois

The delegation witnessed first hand the cyber-mental revolution at four US factories it visited. At Winzlear Gear the delegation saw robots at work that produced 3-5 million parts per annum and that ran 24 hours a day for 7 days a week. It saw how even the raw materials for machines were delivered by a largely automated system. At the Caterpillar plant in Aurora the delegation witnessed robots creating perfect welds in the massive frames of the 994 wheel loaders and 390D excavators that were being created on an assembly line in which parts and products were delivered again by automated trucks and forklifts. Where the skilled welders completed the welds on corners or at the ends of welds the difference in quality and appearance was noticeably worse than those of the computer numerically controlled devices.

Working with machines that have a cyber capacity is the name of the game in advanced manufacturing. This is why calculus is such an important class for Austin poly-technical students. The students move from advanced calculus classes to programming numerically controlled computer machines to actually making the parts from steel. In order to meet a NIMS qualification the student must create a part with no help at all from supervisors or teachers. The general skills ensure that Austin graduates are well placed to move into highly paid positions on the shop floor or to move towards management or to be able to move towards ownership of cyber based manufacturing systems. In gaining an insight into

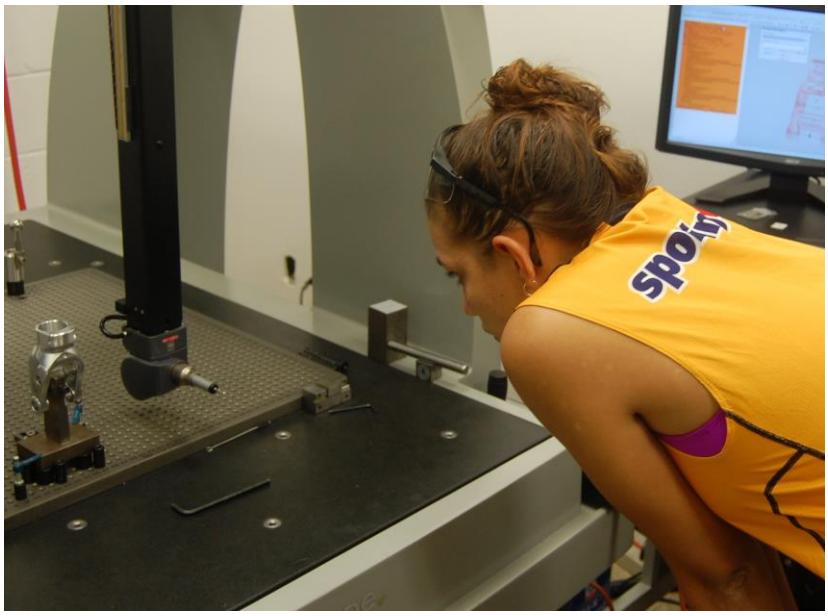
these skills students are gaining an edge and building knowledge of high end manufacturing companies.

Those companies that have embraced the cyber mental age and capacities and enhanced their manufacturing capacity have grown and expanded even in relatively tough economic circumstances. Those employees who have demonstrated their capacity to work at either the programming, practical or trouble shooting and repairing side of cyber manufacturing are in great demand and are comparatively very well renumerated. Industries that do not combine innovation and highly skilled competent cyber workers tend to shrivel up and die in countries like Australia and the USA – though there are some exceptions.

A vision of high end Aboriginal employment is one which uses the capacity of Aboriginal people to view physical shapes in a multi-dimensional way, to be in-genius in making and crafting things and to be innovative in repairing and adapting machines. The missing link is being able to understand, use and manipulate mathematical formulaes and calculus to create products and understand the whole framework of cyber based manufacturing.

Henry Winzlear told the delegation that his employees were either hired with the necessary college or university training or were self taught, practical people who knew how to repair machines and had a naturally innovative, intuitive capacity. It is interesting to note the way in which 16 year old Chaseley Walker responded to the challenge of the Austin curricula. She could immediately see how the education system worked and what it was capable of producing – and she wanted a piece of it. It surprised the entire delegation including her grandfather when Chaseley expressed a desire to come back to Chicago to complete Year 12 at Austin. Her main wish was to do calculus, to learn how to program CNC machines in order to make parts and tools.

As a sixteen year old Chaseley is representative of the biggest proportion of the 600,000 strong Australian Aboriginal community. Aboriginal young people could become key players in the Australian workforce of the future. As Edward Gordon has noted one of the major reasons for the global workforce talent shortage is the fact that the baby boomers in countries like the US and Australia are leaving in droves. The Australian Aboriginal population is young and is best represented by Chaseley's age profile. If Aboriginal young people can pick up the requisite skills they will have a great future in the new industrial era.



Precision measurement: Chaseley Walker Hudson Precision

A second factor for the Aboriginal leadership to consider is the globalisation of industry. The companies that will survive and thrive are innovative, cyber based advanced companies. The companies that do not innovate will eventually die or move their operations to low wage countries like Indonesia, China or India. But even in low wage countries there are skill shortages for technical experts with cyber based artificial intelligence. There are no short cuts to creating such a workforce.

A third factor is the fact that a large number of job seekers do not have the minimum qualifications for an increasingly sophisticated world of work. Manpower surveys show that there are worldwide shortages of engineers, technicians, machinists, mechanics and production oriented IT staff. These are areas that Aboriginal leaders must target for the training of their young people.

A fourth factor is that the impact of computerisation has changed the nature of the workforce. Routine jobs – filing, book keeping, order taking, installation – have disappeared. Meanwhile jobs that involve higher levels of thinking and doing, technical literacy and specialised career and technical knowledge are growing in number. For all these reasons as Edward Gordon says "We need to fix a broken education-to-career system that is out of sync with the practical need to develop all forms of student intelligence. People need to be better prepared for a different cultural reality: jobs that are built on a knowledge economy". (Gordon, p. 10)

The challenge of reforming the school system to produce better outcomes for people is falling to community based organisations and non governmental organisations who are

working with educators through a process of tough love to bring about change. The education industry needs this prod to match training and education with the needs of industry. This is why CLCR and the Chicago Renaissance Council have such important roles.

Chaseley Walker addresses Austin Poly-technical Academy October 13, 2011

Chaseley Walker addresses Austin Polytechnical Academy, Oct 13, 2011

The Poly-technical Model

There is a growing realisation across the United States and in much of the Western world that education is not keeping pace with technology, industry and the needs of globally competitive companies. The regions and communities in America that are surviving the rapid changes to industry and work and the subsequent economic crisis, and changes to technology, are those where partnerships are taking up the challenges to tune pedagogical systems towards high end employment and particularly the change to an artificial intelligence based production system.[6] They are creating in Ed Gordon's words "bridges to the future connecting human talent to the jobs and careers that businesses need filled". (Gordon, p.147)

The Austin Poly-technical Academy came about through three processes:

- an audit of skill shortages in the Chicago region
- a focus on regional manufacturing companies that had flourished and thrived against the perceptions that all manufacturing would disappear to low wage countries
- a focus on what a best practice education system might look like based on international experiences and CLCR's long experiences in dealing with industrialisation and trying to build sustainable communities.

[6] In the US Gordon identifies Santa Ana's Bridges to Careers program - which created High School Inc which combine the liberal arts with career academies including engineering and construction, health care, automotive and transportation, global businesses, high tech manufacturing and new media, North Dakota's Fargo-Moorhead Chamber of Commerce which has charted a course from agriculture to technology services industries though eleven post secondary institutions including the Skill and Technology Training center which is a joint venture of the regions two and four year colleges, Vermillon County's talent and economic development which is supported by sixty six companies, Mansfield Ohio's revamp of its training programs, North Carolina's focus on diversifying industry away from a narrow industrial base to pharmaceuticals, technology, viticulture and tourism as amongst the models of renewals that are being led by organisations consisting of grass roots community members, employers and education reformers.

Machinists tools Hudson Precision

The path towards Austin began with the Manufacturing Workforce Development Project (MWDP) (2001).[7] The subsequent report found that "Cook County manufacturers create more than 10,500 new or replacement jobs annually — jobs generally offering good wages and benefits". It also found that "the Cook County's education and training system does not provide adequate numbers of skilled people to fill those jobs, even though large numbers of area residents, particularly youth and those living in our poorer communities, are eager for opportunities for work". [8]

The report found that "All told, there are some 404,000 manufacturing jobs in Cook County" … and that all of them are being put at risk by our failure to ensure that regional manufacturers can count on finding workers with the right skills to fill job openings." It concluded: "How we close this and other gaps in our workforce education and training system will determine whether or not we will retain, sustain and develop the tremendous power of our manufacturing sector[9]. The report was deeply influenced by best international practice in countries like Germany and Denmark. It called for, among other things, the creation of several small high schools in Chicago that would provide a consistent stream of educated and skilled young people to provide leadership in all aspects of manufacturing.[10]

The reason why Chicago is so important for other communities, including the Aboriginal community, to understand, is that it is undergoing a major transformation ahead of others

[7] A project of the Chicago Federation of Labor (CFL) Workers Assistance Committee (WAC), supported by grant No. AF-10228-00-60 from the United States Department of Labor. The Center for Labor and Community Research (CLCR) provided research and assistance to the CFL in all aspects of the project

[8] See Chapter 3 for details of calculation.

[9] US Bureau of Census, County Business Patterns - 1998

[10] "Austin Polytech: Building the Road as We Travel", Center for Labor and Community Research (CLCR), December 2, 2010

who did not have roots deep in the old industrial production system, and have not moved as deeply into the new era of production. Chicago is a model of manufacturing past, present and future. Seeing Chicago's struggle to keep pace with world industry is very instructive. The fact that there is a minority, under-served community at the heart of these changes makes it doubly important for Aboriginal Australia. The Chicago Renaissance Council and CLCR concluded dramatically: " Cook County faces a crisis in training and education for our manufacturing economy. We have important decisions to make." If this is true of Cook County it is also relevant to many other national and community situations around the world.

The report created a broad framework for the innovative poly technical approach at Austin to unfold. It began to be recognized that partners with interests and understanding of the new economy and industry needed to be directly involved in education. Employability skills had to be given a very high priority. Often companies, under great pressure from global competitors, were developing extremely innovative processes of work that were unique in the world.

The elite world of work and technology had to be linked with a workforce that didn't exist. The challenge was to link the skills and technological insights with an existing workforce base. New employment needs and skills had to be linked with minority and immigrant community aspirations and there had to be meaningful certification recognizing new skills and capacities. In short, the task was to create a technical and education highway to a new arena of advanced manufacturing.[11]

With this framework as a template, CLCR started to develop their polytechnical model which involved a deep linkage and commitment to advanced manufacturing, an insistence on superior academic performance and contextual learning; and a deep commitment to equity, access, and development for all.[12]

Austin Poly-technical Academy was the first attempt in Chicago to create a small high school with an engineering and manufacturing focus. Chicago Manufacturing Renaissance Council leaders met Chicago Public Schools head Arne Duncan (the equivalent of an Australian State Secretary of Education) in July 2005 and discussed the concept of small high schools linked to manufacturing that could attract an active partnership with local companies. Duncan challenged the leaders to consider Austin as the community for the project. The CMRC took up Duncan's challenge and applied for the school, choosing the "performance school" model rather than a charter or contract model. "As a Performance School, we preserved the partnership with the Chicago Teachers Union and ceded management control of the school to the Chicago Public School system. Despite the

[11] Ibid.

[12] Dan Swinney**,** "The CLCR Polytechnical Model of Education", August 30, 2011

difficulties of developing a new model of education without full management control, we still think our decision to go the performance school route was correct. Our desire then and today is to influence the quality of public education and winning support for a new model rather than take full responsibility for all aspects of school operations and trying to replace the public school system".[13]

Austin Polytechnical Academy was formed in 2007. It currently has 400 students enrolled and there are now efforts to replicate this approach in Oakland, CA and Pontiac, MI. In practical terms Austin is about using the last four years of secondary schooling to orient students to high end jobs and high end companies in the manufacturing sector. Its goal is to educate the next generation of leaders in all aspects of manufacturing, from skilled production and engineering to management and company ownership.

A distinctive feature of Austin is that in addition to the core academic competencies in math, science, communications, and soft skills, it provides students with a focus on engineering and metalworking skills. In other words, Austin is not a vocational school but a high level high school with a manufacturing skills focus. Students undertake *Project Lead the Way*, a nationally-recognized pre-engineering program that introduces students to the principals of manufacturing and design, as well as advanced machining that prepares students to secure nationally-recognized credentials from the National Institute for Metalworking Skills. "APA is geared to all careers related to manufacturing including all positions within the firm as well as positions outside of the firm. Our career range includes skilled production technicians, marketing and management, ownership, a Ph.D researcher in nanotechnology, or a leader in industrial policy. We encourage our students to go has high as they can academically recognizing that the more education they have, the higher they can go in the firm as well as have access to careers related to manufacturing that are outside the firm. For example, one of our school partners is John Marshall Law School that just awarded $65,000 in scholarships for 10 students who have demonstrated an interest and capacity in a program in the school on patent law and intellectual property rights. We see a lawyer doing intellectual property cases as a manufacturing career".

All of these components must be available to every student. This means in practice requiring something like 33 hours of classes instead of the usual 24 hours. An extended school day and/or extended school calendar or flexibility in the four-year design is essential. Every student does not require remediation but if the Poly-technical Model is to serve an equity agenda, then remediation must be available, and will probably be needed by the majority of students. These are changes that must be negotiated with the teacher's union as well as reflected in school policy at the state and local level.

[13] "APA Building the Road as We Travel, op cit.

Austin also has a competency based approach to teaching and learning. Problem-solving, communication and real-world job skills are at the forefront of learning that will enhance graduates' career opportunities in any field they choose. For example, in 2010, Austin Polytech unveiled a state of the art Manufacturing Technology Center, which features the same computerized, high-tech equipment used by modern manufacturers today. The machine skills program allows students to earn nationally-recognized certifications from the National Institute for Metalworking Skills (NIMS). Since 2010 110 APA students have earned 146 industry-recognized NIMS certifications.[14] One of the dimensions of this which greatly impressed the delegates visiting Austin was the concept that each student had to learn all of the theory and practical lessons of machining and then actually make a component with precise specifications with no supervision or help from teachers. Only when this occurred would the NIMS certification be granted.

The Austin program creates an engineering focus that sits alongside the normal public school curriculum. But it also encourages practical and 'outside -school knowledge', capacities and cultures. In years nine and ten students are introduced to sophisticated technologies and the technicians, engineers, managers, and CEOs who make manufacturing business successful. Every student takes several field trips to different manufacturing companies, learning about the business of making highly specialized, complex products. In Years eleven and twelve students have numerous opportunities to develop their professional skills including:

- Job Shadowing: Students have the opportunity to spend the day at an APA partner company, learning about the manufacturing business and its various career paths.
- Credentials: Machining is a required class for juniors, and students can earn nationally-recognized metalworking credentials and master the skills to start their careers.
- Work Experience: Rising juniors and seniors have the chance to build up their work experience in a paid summer job or internship with one of our many partner companies.[15]

The Poly-technical model is a method of preparing graduates to have choices, to ensure e*very poly-technical graduate will have a choice of going to a good four year college, a family sustaining job or both* and for manufacturers, the Poly-technical Model is the best way to inspire and prepare the next generation of leaders in all aspects of manufacturing including careers in skilled production work, management, ownership, and related careers outside the firm including law, finance, policy, human relations, engineering and science.

[14] www.austinpolytech.com
[15]

As the following case study suggests it is not only engineering careers that arise from the Austin polytechnical framework. There is some evidence to suggest that the orientation of the school to industry and work creates a wide variety of career options.

Tiera Logan's Story—A Graduating Senior at Austin Polytechnical Academy

Tiera Logan always dreamt of being a pharmacist. This did not keep her from wanting to fully participate and take advantage of Austin Polytech's manufacturing career program. She job-shadowed at Tarny Inc, had two summer jobs at Freedman Seating and Strive Co., and a spring break internship at Overton Chicago Gear. With her classes in engineering and substantial work experience, once Tiera graduated from Austin Polytech she was invited to interview at Arrow Gear Co. for a trainee CNC Operator position. Arrow Gear's HR Director Mary Ann Cervinka, took one look at Tiera's positive demeanor and all the experience on her resume and immediately began to recruit Tiera to work for the company. The trainee position would have started at a salary of $45,000 per year plus benefits with a clearly outlined schedule for pay-increases and promotions. Mary Ann even told Tiera that the company would front the money for a down-payment to buy a car so that she could easily commute to the suburban location. Tiera was very excited about the opportunity being presented to her. She wanted to think about it. She had also been accepted to a college where she could start studying to be a pharmacist. Ultimately, Tiera decided to turn down the opportunity at Arrow Gear, but she was very appreciative to have a choice between two exciting opportunities and the knowledge that because of her experience at APA, she will always have options.

From a broader perspective the polytechnical model is about maintaining and expanding Chicago's advantage in advanced manufacturing by radically building on a world class K-20 education system. But it also has several dimensions that are an innovation on normal school and education. Because it retains the high level competencies of a normal high school with engineering and machining skills the poly technical model is an innovation on the kind of options that present themselves through the conventional high school system. It offers the practical and engineering skills that might occur through a trade school or apprenticeship but it also insists on the highest level mathematical and social science and humanities skills.

In replicating Austin there is a challenge here for all parties, conventional schools, conventional trade or TAFE schools and for employers who generally have a relatively narrow focus on apprenticeships and trades. The other dimension of the poly technical approach is that it focuses on minority and under-served communities.

Bennett Walker, Chaseley Walker, Kuku Yalanji representatives, Paul Briggs, Yorta Yorta representative Justin Mullaley, Australian Education Union, Djarran Whyman. Yorta Yorta representive visit Hudson Precision, Chicago

The shift in thinking is driven by the requirements of high level manufacturing companies. The entry level position in advanced manufacturing requires the same level of education as college or university. The more education a student has, the higher they can go in the firm and in the manufacturing sector. Manufacturing companies also value a strong work ethic, the desire to learn, the ability to communicate, and skill in working with groups as well. Those qualities can often lead to a job in a company and an opportunity to pursue additional education.

In conclusion, the Austin polytechnical model is a new beginning. It is a framework to learn from and build on. The extra 11 hours of schooling that comprise the basis for a manufacturing orientation and the off-school work that is completed in summer holidays represents a gateway of knowledge to experiment with and develop. Different industries, different regions may work within this framework to achieve strategic ends. However the idea of aspiring young people from underserved communities working towards high end goals remains a profound and engaging one. What hasn't been spelled out in this report is the extent to which the Mondragon experiment in the Basque Region of Spain has influenced the thinking behind Austin. This remains the task of another mission and another report that will also be important for Australian Aboriginal communities to learn from and study. However, what can be said here is that the idea of teaching a young person to fish so that they can fill their own baskets with produce remains at the heart of the Austin program. One can imagine many communities simply copying the Austin experiment and leaving out this vital ingredient. What is clear to all of the delegates that visited Austin, the CMRC and CLCR is that the dedication of the leaders and staff who are driving the project is a special ingredient that is central to its success. Austin would not have got to the point where it is now celebrated, criticized, emulated, debated and discussed across the United States and internationally without this critical ingredient. That is why to be successful in Australia there has to be a deep commitment from Aboriginal

leaders to the model and to achieving the goal of self sufficiency for communities. The picture below is a great inspiration. Young Chaseley Walker is addressing the Austin school community. Alongside her are two inspirational women leaders from Chicago, Erica Swinney and Ms Austin the head teacher at Austin Polytechnical Academy. The picture represents a hoped for partnership and point of connection across the oceans between two communities and two peoples who are trying to the best they can for their families and themselves. The visit to Austin created a tremendous opportunity for dialogue, learning and cross cultural awareness and understanding. We must not let this opportunity go past.

Erica Swinney, Chaseley Walker, Ms Austin Head Teacher Austin Poly-technical Academy

Djarran Whyman, Bennett Walker, Paul Briggs – Hudson Precision

Caterpillar Plant Aurora

Appendix 1

For immediate release: September 26, 2011
For more information: Ingrid Gonçalves, igoncalves@clcr.org, 312-725-3202

Australian Aboriginal leaders visit Chicago to learn about an innovative local approach to manufacturing development

CHICAGO—A senior delegation of Australian Aboriginal leaders will visit Chicago to learn about an innovative, manufacturing-focused community development model.

Led by Kuku Yalanji elder Bennett Walker and Yorta Yorta elder Paul Briggs and facilitated by Peter Botsman of the Indigenous Stock Exchange, the delegation will spend October 7 to 14 learning about the Chicago Manufacturing Renaissance Council (CMRC), which unites business, labor, government, education, and community leaders in support of advanced manufacturing in the Chicago area.

The delegation is particularly interested in Austin Poly-technical Academy, a public high school on Chicago's West Side that partners with over 65 local companies to prepare students for leadership in advanced manufacturing and related sectors.

The leaders are interested in the focus on community and socio-economic sustainability. The visit to Chicago is a first step toward replicating the Manufacturing Renaissance Council approach and adapting it to the mining sector in Australia, including a school modeled after Austin Polytech.

"The concept of what we are exploring is of an Aboriginal person at the top of the world manufacturing system making things and learning things that are unique," Mr. Briggs said. "No begging for government dollars. No working in mediocre private or public sector jobs. We are thinking about a group of people who will be at the top of a series of fields that are uniquely needed and uniquely wanted and uniquely renumerated.I have absolutely no doubt we can achieve this."

The delegation was inspired by CLCR executive director Dan Swinney's April 2011 visit to Australia, in which he shared his vision, programs, and experiences with businesses and organizations across the country..

Appendix 2

October 2, 2011

The Australian Delegation

Peter Botsman: Secretary, Indigenous Stock Exchange, Trip Coordinator

Bennett Walker: Chairperson,Yalanjiwarra (Yalanji people) Jalunji (Sea) Mayunga (Rainforest), acultural body that oversees the cultural preservation of Yalanji land and sea

Chaseley Walker:High School student and granddaughter of Bennett Walker

Paul Briggs, AM, Chair, Kaiela Institute

Djarran Whyman, Yorta Yorta

Howard Smith, Northern Land Council

Justin Mullaly, Vice President , Secondary Sector Australian Education Union

Appendix 3

Trip's Purpose

Can Australia be anything other than a giant quarry? We send iron ore to China. We buy it back as steel. Our own factories are closing because with a high Australian dollar we cannot compete against the cheaper labor and more favourable terms of trade of countries like China. Even relatively progressive economists like Ross Gittins think the battle is over. So the medium and long term future looks uncertain.

On the Aboriginal front, kids do not get through secondary school. Of those who do in remote and regional Australia many complete a watered down curricula within a culture of low expectations. There is an increasing number of university and tertiary graduates but most are arts trained and are gaining skills that will only place them in relatively low wage or public sector positions. On this model it will be many generations before Aboriginal Australians catch up with the economic and social capital enjoyed by non-Indigenous Australians.

But imagine this future: an Aboriginal person involved in elaborately transformed manufactures that is leading the world. The product he or she manufactures is not affected by the terms of trade or the price of the labor involved in the manufacture because it is a unique product that few people in the world can make. Everyone must go to our Aboriginal tradesperson, entrepreneur or manufacturer if they want the product. What might the product be? It may be the unique gear system of the world's best excavator. It might be a uniquely efficient solar cell for solar panels. It might be a complex component that works in a plane or car or ship. Of course because there are few people with the skills, capacity and know-how to make the product – the price and the renumeration of those involved in its manufacture is very high.

This is the model we are exploring when we go to Chicago. The concept of what we are exploring is of an Aboriginal person at the top of the world manufacturing system making things and learning things that are unique. No begging for government dollars. No working in mediocre private or public sector jobs. We are thinking about a group of people who will be at the top of a series of fields that are uniquely needed and uniquely wanted and uniquely renumerated.

I have absolutely no doubt we can achieve this. I was up in remote Arnhem Land with my cousin Terence. 5 hours from the nearest shop let alone a mechanics workshop. The key to the outboard motor snapped. In less than a minute Terence had improvised a new key. Our chainsaw broke down. One of the tiny plastic lugs was broken and meant that the chainsaw couldn't be started. In a minute another improvisation. Terence had done it

again. We know from our bush mechanics in Mossman that there are million things that can be done with cars to keep them going for years after their use by dates.

Aboriginal people have amazing capacity to see complex shapes and forms in three dimensions. I have complete confidence in their ability to become elite tradesmen and manufacturers and to become leaders in these fields. Of course there are skill gaps. High level algebra and mathematics. Business communicationskills. Of course there are behaviors that need to be learned and cultural practices that need to be accommodated. But these things are achievable.

This is why we are going to Chicago. We want an elite Aboriginal manufacturer to be leading the way for Australia