



Canadian Policy  
Research Networks

Presentation to Roundtable on

***Pathways for Youth  
to the Labour Market***

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by

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CANADIAN POLICY RESEARCH NETWORKS

# Outline

1. Overview and status of the *Pathways* project
2. Results of the quantitative mapping (using national and provincial surveys):
  - Characteristics of those who follow various pathways
  - Outcomes associated with pathways
3. Results of the qualitative/institutional studies:
  - career planning services
  - government/school board policies and practices re high school options
  - case studies



# Purpose of the 'Pathways' Project

- To better **understand the paths** that young people take, from high school through to regular participation in the labour market.
- To **examine institutional and policy structures** that affect people's ability to find pathways that lead to sustained, high quality employment.
- To **examine attitudes and underlying values** about different pathways.
- To **develop policy options** to improve the ability of young people to identify, select, and navigate pathways that lead to good jobs.

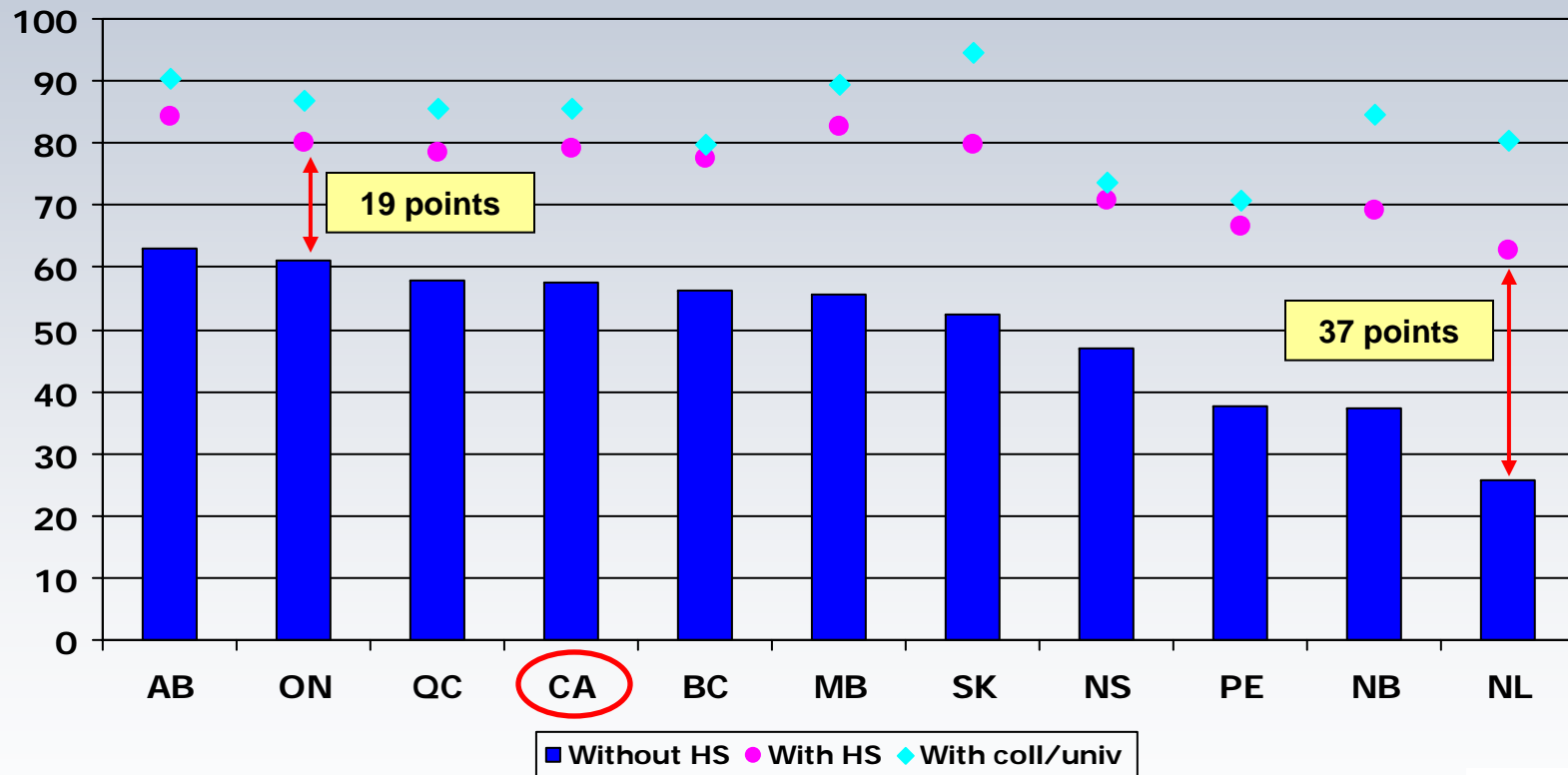


# Background: Employment Rates

- The level of educational attainment strongly affects the employment rate of young adults in Canada.
- The influence of education varies among provinces: from a 19 percentage point difference for high school completion in Ontario to 37 points in Newfoundland and Labrador.



# Employment rates, 2002, 20-to-24-year-olds not in education, by level of educational attainment and province



# Background: Gender Differences in Gains from High School Completion

- Lower HS drop-out rate for women.
- Among those who drop-out:
  - 43 per cent of young women drop-outs do not participate in the labour market.
  - Only 14 per cent of young male drop-outs do not participate.
- HS completion improves employment rate of young women by 32 percentage points; young men by 15 points.



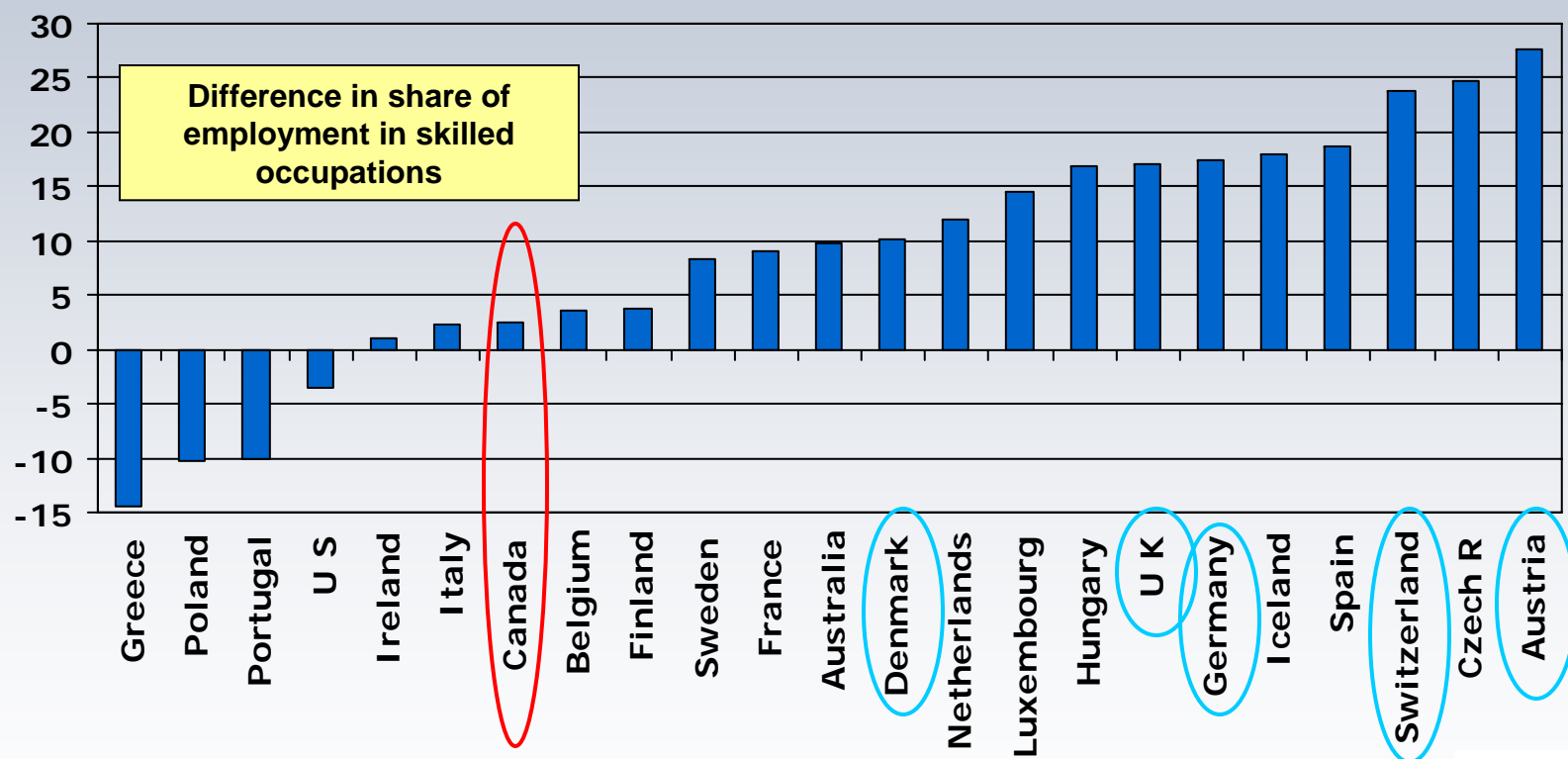
# Background: High School Completion and Skilled Jobs

- In Canada, a high school diploma has little impact on finding a skilled job.
- This is striking in comparison with the experience of some other OECD countries (for example, Switzerland, Germany, the United Kingdom, Denmark, Australia).



# Benefits of further education for access to skilled occupations

## With HS vs. Without HS





# Background: PSE and Skilled Jobs

- PSE provides, on average, clear benefits in terms of employment rates and earnings.
- But, in Canada and US, 1/3 of employed 25-to-29-year-olds with PSE diploma/degree have a low-skill job – the highest ratio among OECD countries.
- At the same time some skilled trade jobs remain difficult to fill.



# Key Research Questions

(and project status on each)

1. What **paths** are young people taking from high school to the labour market?
  - How many follow each type of path?
  - What is the demographic profile of different pathways?
  - What labour market outcomes are associated with different paths?

Key studies: Krahn and Hudson (2006); Quebec Ministry of Education (forthcoming); Hango (forthcoming).



## 2. To what extent is **preparation for skilled jobs** available in our high schools?

- How have approaches and roles of different groups involved in school-work transition in high schools changed over time?
- What programs are available for youth not bound for university and what proportion of youth are engaged in them?
- How can one offer vocational options without prematurely streaming students away from post-secondary education options?

Key studies: Taylor (2007); Doray (forthcoming); McCrea Silva and Phillips (forthcoming).



### 3. How available are **career planning** services in Canada's high schools, post-secondary institutions, and community organizations?

- What are the qualifications of those providing such services? Does professional certification matter?
- To what extent does the use of career planning services in the early (as well as later) teen years improve academic and/or labour market outcomes?
- What is the experience in other countries (e.g., Australia, Scotland) that have made recent efforts to improve career planning?

Key study: Bell and Bezanson (2006)

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#### 4. To what extent are students able to **bridge between different programs**?

- Between vocationally-oriented and academically oriented programs in high school?
- Between colleges and universities?
- What would be the most effective ways to improve bridging opportunities?

Some elements addressed in Taylor (2006), Doray (forthcoming) and Quebec Ministry of Education (forthcoming)



5. What are the **attitudes** of educators, parents, and students towards non-academic pathways?

- What are the underlying values that shape these attitudes?
- What knowledge base do parents, students and educators bring to this discussion?
- Would these attitudes change if there was better information about labour market prospects?

Plans for deliberative dialogue with parents, students, educators if sufficient funds raised.



## 6. What are the trends in **demand** for skilled/highly skilled workers?

- How well are young people's skills being utilized in their jobs?
- What factors influence employers' demand for skilled workers and use of employees' skills?
- How do employers' HR practices affect young people's choice of learning pathway?
- What strategies might be needed so that the skills our young people acquire can be fully utilized?

Study to be launched this spring, with roundtable in fall. Looking for advice on design.



7. What are the **policy implications** of this research?

Plans for a synthesis of key findings of the CPRN series and other recent literature, with a focus on policy implications.

To be launched winter 07/08, with roundtable spring '08.





# Results of the quantitative mapping of pathways



# Krahn and Hudson (2006)

- Study of Alberta's high school graduating "class of 1996" during the seven years following its exit from high school.
- Baseline data collected in 1996 from 2,681 grade 12 students
- Follow-up completed in 2003 with 1,218. (Results of follow-up weighted to be representative of 1996 class.)



## Key findings on **educational attainment**:

- 88% had enrolled in PSE at some point.
- 60% had at least one PSE credential.
  - 32% university degree; 15% community college diploma; 15% technical school diploma; 4% completed apprenticeship
- Youth in large cities more likely to have attended university.
- Youth with university-educated parent much more likely to have a university degree.
- Immigrant and visible minority youth more likely to have acquired a PSE credential.
- Aboriginal youth severely under-represented among PSE graduates.



## **Non-linear pathways**

Many had deviated from a traditional “straight out of high school, into, and through college / university” educational path.

- 23% had returned for a second year of Grade 12.
- 19% of PSE participants had transferred between institutions while completing a program (often starting a degree program at community college and finishing at university).
- 14% of PSE participants had completely discontinued.



## Employment Outcomes by Age 25

- In 2003, 71% employed in a single job, 14% in more than one job, 6% unemployed, 9% out of labour force.
- Among those employed, 73% with PSE credentials were working in managerial, professional, or skilled jobs.
- 31% of those employed felt over-qualified for their job.
- Those with university or trades/technical credentials (but not college) earned much more than those without PSE credentials, other things being equal.
- A large gender income gap remained.

## Schooling and Skills

- 59% felt that high school had helped them meet their career objectives; 85% of those with PSE credentials felt PSE had helped them meet career objectives.



# Hango (Statistics Canada) (forthcoming)

- An analysis of data from the *Youth in Transition Survey*, looking at individuals who were 18-20 in 1999 and following up on their situation in December 2003.
- Youth who were still in school, about 34% of the sample, were removed from the analysis of labour market outcomes.
- 10 prominent high school to labour market pathways served as the focus. (Combined into 5 when analysis attempts to find determinants of pathways)



# Hango's 10 pathways

1. High school (HS) drop-out; no return to school
2. Drop-outs who returned to HS or PSE ("2<sup>nd</sup> Chancers")
3. HS diploma but no PSE
4. No learning gap after HS; some PSE but no diploma
5. No gap; college diploma
6. No gap; university degree
7. Trade certificate or other PSE certificate
8. 4+ month learning gap post-HS; some PSE, no diploma
9. Gap; college diploma
10. Gap; university degree



## **Hango: Background Factors Associated with Education to Labour Market Pathways**

- Females less likely to drop out of high school; more likely to go on to PSE, especially directly after HS.
- Aboriginal youth less likely to participate in PSE.
- Visible minority youth and those born outside Canada more likely to have a university degree.
- The presence of a long-term limiting condition is a hindrance to further education.
- A greater number of siblings is associated with a greater risk of not finishing high school, as is living in a single- or step-parent household during HS.
- Youth with parents who have a high level of education were more likely to go to PSE.





## Intervening Factors

- Marks matter.
- Working some hours in high school can be beneficial, while working a great number of hours (over 20) can be detrimental.
- Higher parental expectations are associated with higher educational attainment.
- Early family responsibilities increase risk of dropping out.



## Labour Market Outcomes

- High School Droppers, 2nd Chancers, and Gapper-Post Secondary Leavers are more often not employed than those in the other pathways.
- University and college graduates (regardless of gap) earn significantly more than High School Droppers, 2nd Chancers, Post Secondary Leavers, and those with a high school diploma only. However, more than a quarter of PSE graduates earn less than median for drop-outs.
- Women earn almost 28% less than their working male counterparts.
- Young adults with PSE degrees or diplomas are more represented in jobs in management, business, professional, scientific, education and government jobs.
- Geographical mobility brings earnings benefits.



# Quebec Ministry of Education

(forthcoming contribution)

Quebec Education system has specific characteristics:

- 6 years of primary school and 5 years of secondary school  
=> end of HS one year earlier than in other provinces
- Vocational education offered in secondary schools
- College programs:
  - **Two-year program for pre-university**
  - **Three-year programs for technical training – primarily entry to the labour market; also admission to certain disciplines in university**
- Distinction of “youth sector” and “adult sector”
- Access to vocational and technical training is free



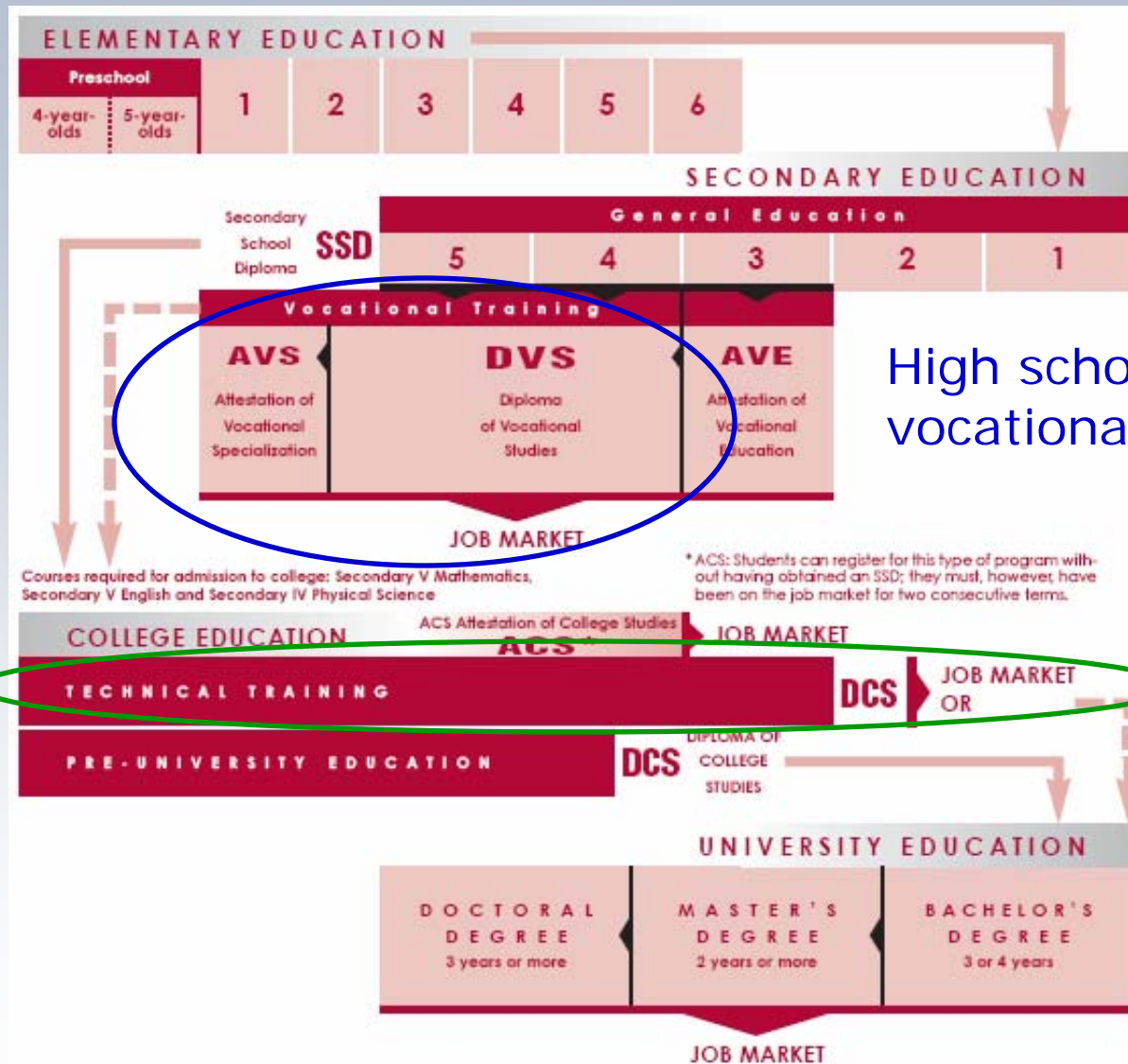
## Highest Degree, Certificate or Diploma for 25-to-29-year-olds

	Québec	Ontario	Canada
	%	%	%
No degree, certificate or diploma	16.9	14.2	16.9
High school graduation certificate	18.0	24.5	22.9
Trades certificate or diploma	14.4	8.2	11.4
College certificate or diploma	23.0	21.8	20.9
University certificate, diploma or degree	27.7	31.4	28.0

Source: 2001 Census.



# Flows in the Quebec Education system



College technical training

High school vocational training



# Quebec's study focus and data

- Examination of pathways for graduates with a Diploma of Vocational Studies (DVS) – HS level – and technical Diploma of College Studies (T-DCS) with a contrast with HS dropouts
- Data sources:
  - **administrative longitudinal data for paths through the education system (all less-than-30 who obtained a DVS or T-DCS in 2003)**
  - **follow-up surveys (*“Relance”*) for paths to the labour market in 2005 (2 years after graduation)**
  - **2001 Census for HS dropouts**
- Data allow examination of “continuity of studies” and “linearity of studies”



# Enrolled and graduates of vocational education

- Close to 18% of students under 20 enrol in vocational HS (60% are men) – but they form only 1/3 of new registrants in vocational studies and 2/3 already have a SSD
- Among 15-19 year-olds, almost all who moved into vocational studies did so without interruption, but 2/3 entered vocational studies in the adult sector (a different school environment) – demonstrates flexibility of system
- Half of DVS graduates are 20 to 24 years old
- About 1/10 pursue a further vocational specialization



# Enrolled and graduates in college

- 60% of HS graduates move on to college immediately (men 50% - women 70%)
  - **60% of them enrol in pre-university programs**
  - **28% in technical programs**
- 60% of technical training graduates are women
- Most graduates under 25 have moved to technical college directly after general or vocational HS programs
- Older graduates (14% in 2003-04) have most often experienced non-continuity – more than ½ had 2 or more years of interruption; more than ½ were PSE dropouts





# Flow of graduates after college

- 78% of graduates from college pre-university programs move on to university immediately
- 25% of graduates from technical college training do same – considered fair success in bridging technical training and university



# Labour market outcomes

Situation 2 years after graduation (en %)

		Employed	Looking for employment	Studying	Inactive
DVS graduates	BS	78.0	8.0	10.4	3.6
	M	77.9	8.9	10.4	2.8
	W	78.1	6.6	10.3	5.0
T-DCS graduates	BS	64.6	3.6	29.5	2.3
	M	58.1	5.0	34.9	1.9
	W	68.7	2.7	25.9	2.6

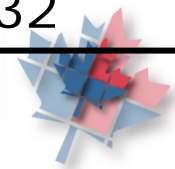


# Labour market outcomes

## Job quality and earnings

Situation 2 years after graduation (en %)

		Job related to studies (%)	Full-time job (%)	Weekly earnings (\$)
DVS graduates	BS	78.5	88.6	534
	M	79.0	95.0	587
	W	77.6	78.5	428
T-DCS graduates	BS	81.3	85.6	550
	M	75.0	91.4	581
	W	84.7	82.5	532



# Results of the qualitative/institutional studies



# Bell and Bezanson (2006)

- Examine career development services in Canada for youth and young adults.
- OECD paper, *Career Guidance and Public Policy: Bridging the Gap* (2004), links comprehensive career development systems to advancement of a country's labour market, social equity and learning goals.
- In Canada, there is limited awareness of the benefits of career development and no national career development strategy or standards for service quality or provision.



# Bell and Bezanson: Key Findings

- Data are scarce on use of career services, especially for out-of-school youth.
- Career development services for youth are highly decentralized. They are neither coherent nor comprehensive in scope.
- Some provinces are beginning to develop career development service policies from K-Adult or K-12.
- Only Quebec regulates the profession.
- Voluntary “Standards and Guidelines” have been developed.
- Most respondents to a 1999 survey of youth access to career info reported finding it difficult to obtain what they needed to make an informed career decision.



- Services for youth are offered in schools (primarily), public youth employment centres and non-profit youth employment centres. Those not in school have much less access to services.
- Decisions about the extent of and access to career services are often made at the school board or institution levels and are vulnerable to shifts in government policy and funding allocation.
- Service provision is primarily career information and support with immediate education and training decisions rather than career planning and preparation.



- A review of (limited, rarely longitudinal) research evidence suggests career development programs can:
  - **increase motivation to continue learning after high school;**
  - **reduce the number of school leavers in either high school or post secondary;**
  - **increase career certainty and academic success;**
  - **build work readiness;**
  - **support the integration of labour market information;**
  - **change attitudes to increase career choice**
  - **increase focus on a career path when work experience is attached to some form of career development reflection.**





# Bell and Bezanson: recommendations

- Legislate student entitlement to career development services;
- Require that teacher education include a minimum of one course on career development;
- Begin career development by grade six;
- Establish an outcome-based accountability framework;
- Evaluate services systematically.



# Taylor (2007)

- Looks at institutional and policy structures that support or hinder the ability of high school students to find pathways leading to rewarding work in:
  - BC
  - Alberta
  - Ontario
  - Newfoundland/Labrador
  - Australia (Queensland).



## Key findings

- All 4 provinces have placed increased emphasis on career planning in high school.
- All are interested in increasing career pathways for students and enhancing flexibility and mobility in learning systems (but they vary in support for student transfer within the PSE system).
- All emphasize the need for local partnerships between schools, post-secondary institutions, and employers.
- 3 of the 4 provinces studied have established a high school apprenticeship program.
- Some provide opportunities for HS students to earn post-secondary credits and/or industry certification.
- To date, these initiatives involve a small proportion of the high school population.



## Possible reasons for low participation

- All provinces have a decentralized “market” approach to vocational education and training, waiting for locally-developed models to emerge. There has been limited co-ordination and unreliable funding.
- All provinces are struggling to update technology curriculum and facilities and to hire enough qualified teachers.
- Few provinces collect information about program outcomes, and enrolment information is not readily available or easily comparable across jurisdictions. (Contrast with Australia and Queensland. Also, in Australia, secondary school curricula are more closely tied to a national system of qualification. )



# Taylor: preliminary responses to key policy questions

**What role should governments play in terms of partnership facilitation, support/funding, and coordination of high school initiatives?**

- The market approach to VET in Canada has the advantage of responsiveness to local needs and the disadvantage of a lack of central coordination, leading to fragmentation and potential inequities.
- Governments could play a much more active role in ensuring the sustainability and effectiveness of VET and in defining objectives.



## **What roles should post-secondary institutions and industry play and how can they be encouraged to participate?**

- Articulation between secondary and post-secondary institutions is beginning but requires governmental support. In particular, links between vocational education, apprenticeship and tertiary education could be developed further
- Governments need to foster development of effective partnerships between educators and employers.



## How can students be encouraged to make realistic career decisions without prematurely streaming them or locking them into particular educational and occupational choices?

- Recognize that youth have very high educational aspirations
- Ensure mobility between pathways to work, college, and university.
- Collect socio-demographic data related to student enrolments and outcomes to ensure that programs are inclusive of the diversity of students.
- Strike a balance between providing job-specific training to high school students and ensuring that they are exposed to general knowledge that will help them to progress in a career and develop as citizens.



# McCrea Silva and Phillips, SAEЕ (forthcoming)

- Five case studies of recent, high-school-based career pathways initiatives:
  - **North Peace Secondary School, Fort St. John, British Columbia**
  - **Rutland Senior Secondary School, Kelowna, British Columbia**
  - **Mistassiniy School, Wabasca, Alberta**  
(predominantly Aboriginal)
  - **Olds Junior Senior High School and Community Learning Campus, Olds, Alberta**
  - **White Oaks Secondary School, Oakville, Ontario**





- Site visits conducted December 2006 and January 2007.
- Interviewees included: teachers, career counselors, students, parents, school-based administrators, district superintendents/ coordinators, college program instructors.
- Types of initiatives include: apprenticeship and pre-apprenticeship programs, dual credits, work experience/internships.
- Partnerships with community colleges and employers.



# Perceived benefits

- Reduced drop-out rate
- Head start on apprenticeship or college; improved completion rates
- Improved employment prospects
- Increase in self-esteem
- Better use of resources (school/college partnerships)
- Greater supply of skilled workers



# Characteristics of Effective Programs

- Vision
- Sustained support from district/school board
- Active partnerships and employer participation
- Flexible delivery options
- Active marketing and recruitment
- Career awareness curriculum that begins early
- Articulation with post-secondary institutions



# Issues/Challenges

- Recruitment/retention of instructors
- Gender
- Transportation to work sites
- Finding enough work placements, especially during economic downturns
- Coordination/articulation between institutions
- Risk of premature streaming/closing doors
- Outcome data



## McCrea Silva and Phillips: Key recommendations

- Expand dual credit programs.
- Establish councils involving local community, industry, post-secondary institutions and secondary schools.
- Sustain funding through economic downturns.
- Encourage participation by female students.
- Provide incentives (e.g. wage subsidies, tax credits) for employers to participate in trades training.
- Expand career awareness activities in earlier grades.
- Identify and share best practices. (Pan-Canadian research and knowledge exchange)
- **Establish evaluation systems.**





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