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A pan-Canadian strategy for education and training

TAKING ACTION FOR CANADA

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About the author

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About this report

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For more information about the CCCE's skills initiative, **Taking Action for Canada: Jobs and Skills for the 21st Century,** please visit <u>www.ceocouncil.ca/skills</u>.

Founded in 1976, the CCCE is the senior voice of Canada's business community, representing 150 chief executives and leading entrepreneurs in all sectors and regions of the country. Its member companies collectively employ 1.5 million Canadians and are responsible for most of Canada's private sector investments, exports, workplace training and research and development.

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Executive summary

Why should Canadians build a national education strategy? What would it look like? How can we construct it? What role should business play in that strategy?

These questions are central to optimising learning conditions nationwide.

This analysis will begin with a review of the declining performance of Canadian education in contrast to comparator countries in the Organisation for Economic Cooperation and Development (OECD). Recent results from the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) are particularly alarming. They confirm the mediocre basic skill levels of Canadian adults. Since the competencies of adult Canadians with post-secondary education (PSE) are near the bottom for all three basic skills, PIAAC results presage further Canadian slipping down the learning curve.

In Part I, other troubling trends are cited as examples from a much longer potential list of our shortcomings in learning. They include regression in OECD rankings of secondary school students; a lack of basic information about performance in early childhood education (ECE); weakness in K-12 vocational education and training (VET); a low proportion of graduates in science, engineering and computer science; and the absence of any coherent national system of tertiary education.

Parts II and III outline two essential tools for improving education and training. National instruments and frameworks help to coordinate the efforts of governments and social partners, creating a learning architecture that allows people to find pathways that fit their needs. Useful models include: the Higher Education Pact in Germany; national coordination of VET in Germany; harmonization and improved quality of K-12 and vocational education in Australia; and a series of large-scale projects in the EU that should markedly improve educational results over time.

The second indispensable tool is national goals. Establishing measurable targets permits genuine accountability in education and training. Fundamental to the process is the objective public reporting of results. The EU, for example, first benchmarks current performance of the community as a whole and of individual countries, and then prescribes targets to be reached over a specified period of time. The benefits of benchmarking and the accompanying data and analysis required to support it are far-reaching. They help individual learners make informed choices; they allow policy makers to arrive at decisions informed by evidence; and they improve the ability of social partners, including industry, to support educational processes.

Part IV shows what steps the business community will need to take to strengthen its credibility as an important voice in Canadian learning, and to make the urgent contributions that Canadians should expect from it. The private sector should set and attain its own collectively stipulated and measurable targets in education and training,

and should partner in the specific national initiatives to advance learning that are described in Part IV.

The paper's last section offers a proposal for a cooperative national approach based on the elements described in Sections II, III, and IV: an institutionalized instrument that promotes collaboration; the articulation of clear, measurable national targets; and ongoing structured relationships between governments and social partners, including the business sector.

The federal government is the only actor capable of leading the creation of this pan-Canadian strategy. It should form, with provinces and territories, a Council of Ministers responsible for learning and training. Assisted by experts and interested parties in civil society, the Council would establish targets for all phases of learning, assisted by advisory bodies drawn from experts and interested parties in civil society; a separate national body would monitor outcomes. As in Europe, there should be broad "headline targets" and more specific ones, as well as clearly specified timelines for their attainment.

The creation of such a Council would give Canadians, for the first time, a body that is genuinely accountable for learning across the country.

The complementary roles to be taken up by social partners through advisory groups and monitors are also critical to success. Without them, governments would fail to obtain a realistic appraisal of priorities and of the steps and resources needed to attain their goals. Among these partners, business will be among the most important, provided that the private sector improves its own performance through investments in research and development, in-company training, and VET.

There are many obstacles to the inception of this national strategy for education and training. Chief among them perhaps is resignation – the view that, "In Canada, it can't be done."

While this paper cannot summon the determination and political will to build it, it aims to show why and how it ought to be accomplished.

Sommaire

Pourquoi les Canadiens devraient-ils se doter d'une stratégie d'éducation nationale ? En quoi devrait consister cette stratégie ? Comment pouvons-nous l'élaborer? Quel rôle les entreprises devraient-elles y jouer ?

Ces questions jouent un rôle central dans l'optimisation des conditions d'apprentissage à l'échelle du pays.

Nous commencerons notre analyse par un examen du recul de la performance de l'éducation canadienne par rapport à celle de pays de comparaison de l'Organisation de coopération et de développement économique (OCDE). Les derniers résultats du Programme pour l'évaluation internationale des compétences des adultes (PEICA) de l'OCDE sont alarmants. Ils confirment le niveau médiocre des compétences de base des adultes canadiens. Étant donné que les niveaux de compétences des adultes canadiens ayant une éducation postsecondaire (EPS) sont parmi les plus bas en ce qui a trait aux trois compétences de base, les résultats du PEICA laissent présager un nouveau glissement du Canada sur la courbe d'apprentissage.

Dans la partie I du document, on cite d'autres exemples de tendances inquiétantes parmi une liste potentielle beaucoup plus longue de nos lacunes en matière d'apprentissage. Parmi ces tendances, mentionnons : le recul des élèves de niveau secondaire dans les classements de l'OCDE; un manque d'information de base sur la performance relative à l'éducation de la petite enfance (EPE); la faiblesse de l'éducation et de la formation professionnelles (EFS) de la maternelle à la 12^e année; une faible proportion de diplômés en sciences, en génie et en informatique; l'absence de tout système national cohérent d'éducation tertiaire.

Les parties II et III présentent deux outils essentiels pour améliorer l'éducation et la formation. Des instruments et des cadres nationaux permettent de coordonner les efforts des gouvernements et des partenaires sociaux, créant une architecture d'apprentissage qui permet aux gens de trouver des cheminements qui répondent à leurs besoins. Nous trouvons des modèles utiles dans le pacte sur l'enseignement supérieur en Allemagne; la coordination nationale de l'EFS en Allemagne; l'harmonisation et la qualité améliorée de l'éducation de la maternelle à la 12^e année et de l'éducation professionnelle en Australie; une série de projets à grande échelle dans l'UE qui sont de nature à améliorer de manière importante les résultats au chapitre de l'éducation au fil du temps.

Deuxième outil indispensable : des objectifs nationaux. Établir des objectifs mesurables permet une véritable responsabilisation au chapitre de l'éducation et de la formation. L'un des éléments fondamentaux du processus est la divulgation publique objective des résultats. L'UE, par exemple, fait d'abord une analyse comparative de la performance en cours de l'ensemble de la communauté et de chacun des pays, puis prescrit des objectifs à atteindre durant une période précise. Les avantages de cette analyse comparative et des données et analyses devant l'accompagner sont d'une grande

portée. Elles aident individuellement les apprenants à faire des choix éclairés; elles permettent aux décideurs d'en arriver à des décisions fondées sur des données probantes; elles améliorent la capacité des partenaires sociaux, y compris l'industrie, de soutenir les processus éducatifs.

La partie IV indique les mesures que la communauté des entreprises devra prendre pour asseoir sa crédibilité en tant qu'intervenant important qui a son mot à dire sur l'apprentissage au Canada et pour apporter, dans l'urgence, la contribution que les Canadiens sont en droit d'attendre d'elle. Le secteur privé doit établir et atteindre les objectifs mesurables qu'il aura lui-même établis collectivement en matière d'éducation et de formation. Il devrait à cette fin s'associer aux initiatives nationales spécifiques d'amélioration de l'apprentissage décrites dans la partie IV.

La dernière partie du document présente une proposition de démarche nationale coopérative fondée sur les éléments définis aux sections II, III et IV : un instrument institutionnalisé qui favorise la coopération; l'énonciation d'objectifs nationaux clairs et mesurables; des relations permanentes structurées entre les gouvernements et les partenaires sociaux, y compris le secteur des entreprises.

Le gouvernement fédéral est le seul acteur en mesure de diriger l'élaboration de cette stratégie pancanadienne. Il devrait, de concert avec les provinces et territoires, former un conseil des ministres responsables de l'apprentissage et de la formation. Avec l'aide de spécialistes et de parties intéressées de la société civile, ce conseil devrait établir des objectifs pour toutes les phases de l'apprentissage; un organisme national distinct ferait le suivi des résultats. Comme en Europe, on devrait se fixer des objectifs généraux et d'autres plus spécifiques assortis d'échéances précises pour les atteindre.

La création de ce conseil permettrait aux Canadiens de disposer pour la première fois d'une entité qui soit véritablement responsable de l'apprentissage à l'échelle du pays.

Les rôles complémentaires que doivent jouer les partenaires sociaux dans le cadre des groupes consultatifs et des organes de surveillance sont également essentiels à la réussite de la démarche. Sans eux, les gouvernements ne peuvent compter sur une appréciation réaliste des priorités et des mesures et des ressources nécessaires pour atteindre leurs buts. Parmi ces partenaires, le monde des entreprises compterait parmi les plus importants, à condition que le secteur privé améliore sa propre performance par des investissements dans la recherche-développement, la formation interne et l'EFS.

Les obstacles à l'instauration de cette stratégie nationale d'éducation et de formation sont nombreux. Le principal est peut-être la résignation – le point de vue selon lequel « on ne peut pas faire ça au Canada ».

Bien que ce document ne puisse en lui-même susciter la détermination et la volonté politique de construire cette stratégie, nous espérons pouvoir montrer pourquoi et comment celle-ci doit être réalisée.

Preamble

There was a time when the expression "Think globally, act locally" was a byword for a generation.

There was also a time when Canadians believed that their collective destiny shone among the brightest in that globe – in part because the country's education ethos was positive and pervasive. We were educating young people to aspire to better futures.

In Germany at the turn of this millennium, when the OECD published the results of its first standardized tests of teenage pupils under the Programme for International Student Assessment (PISA), commentators spoke of a "PISA shock".

Profoundly dismayed, shaken by results that most Germans considered unacceptable, the country launched a sustained and so far successful effort to improve its national educational outcomes.

Germany is a wealthier, more productive, more innovative economy and society than Canada. Yet Germans were concerned that failure to improve their education system substantially would spell disaster.

In the fall of 2013, Canada should have experienced a shock every bit as troubling as the one in Germany in 2001. Canadian results from the OECD's Programme for the International Assessment of Adult Competencies (PIAAC)¹ should have laid to rest the myth among Canadians that we are leaders in education.

PIAAC underlined two fundamental realities for OECD members and for Canada in particular. The first is that "educational attainment" on one hand and skills and competencies on the other are not at all equivalent. The Council of Ministers of Education, Canada (CMEC) boasts that our country enjoys the "highest PSE attainment in the OECD". That may be true, but surely the salient question is: How much do our graduates actually know?

The answer to this question underlines the second reality: the relative poverty of Canadian education and skills development. In all three competencies tested for adults with tertiary education, Canadians lag the OECD field, ranking 19th of 21 in numeracy, 18th of 21 in literacy and 14th of 18 in problem-solving.²

Although PIAAC is singularly significant, many more data points – including recent PISA scores - point to the irrefutable conclusion that Canada is slipping steadily down the international learning curve.

¹ Statistics Canada (2013) The Daily, Tuesday Oct. 8, 2013. Skills in Canada: First results from the Programme for the International Assessment of Adult Competencies, 2012 (final) http://www.statcan.gc.ca/dailyquotidien/131008/dq131008b-eng.pdf ² lbid.

The more important questions are: to what extent will we cease acting as ostriches on an issue that profoundly affects our individual and collective economic and social future; and what are we prepared to do about it?

This second query constitutes the focal point of this paper. How can we set optimal conditions for future success, given that we are now operating under conditions that are conducive to failure – failure to give our young individually the best opportunities to succeed, and failure collectively to compete internationally?

Even while respecting the complexities inherent in educational public policy, this paper responds in a modified echo of the byword of previous generations. We must think and plan nationally if we hope to act locally in ways that will reverse the trend and set conditions for future success.

Introduction

This paper seeks to describe the means by which Canada, through enhanced coherence, cohesion, and coordination at a pan-Canadian level, can put in place optimal conditions for a successful learning future – with all its positive implications for innovation, productivity, wealth creation, and beneficial social and individual impacts.

This is not a matter uniquely for governments at various levels. If other social partners – including and perhaps especially business leaders – are not closely involved and committed, a pan-Canadian approach will fail.

There are two principal reasons for this. First, it has been shown for all developed economies that the involvement of social partners is a key to educational progress. Second, Canada's federal and provincial governments have, over decades, shown themselves incapable of rising above jurisdictional dispute. Only with the leavening factor and catalyzing influence of players outside government will governments move to a true partnership on education and skills training. Industry is an essential buffer for intergovernmental coordination in Canadian education.

This paper outlines how a national approach – without reference to constitutional change – can be developed and implemented; and what signal and continuous contributions industry can make.

It is organized in five sections:

- □ Section I describes some of the troubling trends that demand a fresh Canadian approach.
- □ Section II examines how other societies are creating mechanisms that permit them to aspire to future success.
- □ Section III stresses how the establishment of measurable national goals becomes the nexus underpinning improved cooperation and outcomes.
- □ Section IV considers the role of industry, which must harness itself to the attainment of national strategies by clearly articulating its own contributions to those objectives.
- □ Section V emphasizes that goals may not be reached without the necessary platforms. Taking account of the history and character of Canada, it outlines specific instruments that could help us achieve our targets.

Thinking nationally and strategically in education and learning means the setting of goals and the creation of the frameworks needed to attain them. This step is required for local action to succeed.

Section I: Troubling trends

A full report of the shortcomings of the Canadian learning sector is beyond the scope of this paper. Instead, this section will summarize a few of many troubling trends.

K-12 education

- A. Canadian PISA results in reading, science and mathematics have been trending downward for a decade. It is not just that others are passing our 15-year-olds in the "league tables". There has actually been some absolute regression in Canadian scores: we are treading water or going backwards while others are moving forward.³
- B. The Learning Curve international standings, released by Pearson International and *The Economist* in 2012, rated Canadian education as average (in 10th place) among developed countries.⁴
- C. The principal cause of our relative regression is that other countries are coordinating national efforts and establishing national goals for main subject areas. Canada, with no national office or ministry for education, is mired in inertia, each province and territory doing its best in relative isolation.
- D. There is a clear and increasing gender gap between boys and girls in Canadian schools. For example:
 - □ Girls outperform boys by increased margins in reading and writing, and have caught up to boys in areas such as mathematics and science where they previously lagged.
 - □ Early school-leaving rates for males are much higher than for females. This discrepancy leads to much higher tertiary participation rates for females, especially at university, where they will soon comprise two-thirds of first degree graduates.
 - □ The vast and growing educational superiority of females would perhaps not be problematic if males were succeeding at alternate forms of training but they are not. The result is a massive loss of human capital.
- E. It has already been observed that the most recent PIAAC results place Canadian adults with tertiary education near the bottom of the pack in all three fundamental competencies. When we examine literacy results specifically, we note that the proportion of Canadians performing at the highest levels (levels 4 and 5) is also below the OECD average. Our highest-skilled compatriots trail those of partner countries that are our international competition. For example, 21.9 per cent of

³ Statistics Canada and the OECD, Programme for International Assessment of Skills (2012).

⁴ Pearson. The Learning Curve. http://thelearningcurve.pearson.com/index/index-ranking

Canadians place at these highest levels, compared with 24.3 per cent in the United States and 36.3 per cent in Finland.⁵

The comparison with the United States is especially notable. One reason for Canadian complacency is our propensity to compare ourselves almost exclusively with our southern neighbours. This enables us to feel somewhat superior since U.S. averages in all areas of social policy are relatively poor. However, in most of these fields, including in education at all levels, low U.S. averages mask the reality of large numbers of elite performers. In education, this applies to K-12, to tertiary institutions and to specific competencies such as literacy. Put another way, U.S. human capital will excel whether or not it demonstrates equity or evinces a national strategy. Canada, however, cannot afford a passive approach.

Early childhood education and care

The OECD observes that participation in early childhood education and care (ECEC) programs "tends to lead to better outcomes later in life. The difference between students who attended pre-primary . . . and those who have not attended pre-primary averaged 54 points in the PISA reading assessment – or more than one year of formal schooling".⁶

Paradoxically, even while Canadians such as Dr. Fraser Mustard have been internationally prominent in showing the lifelong impact of good early childhood education and care, Canada has remained a laggard in this area. One illustration: among 37 OECD countries, Canadian enrolment rates in 2010 at age four in early childhood and primary education ranked 36th (OECD 2012).⁷

The OECD sets out five "policy levers" to improve the quality of ECEC. While there is considerable variation among provinces in developing the instruments of the OCED "toolbox", Canada as a whole has implemented none of them. This implies that we will continue to lag, with predictably negative consequences for the future.⁸

The OECD identifies "data collection, research and monitoring" as "powerful tools for improving children's outcomes and driving continuous improvement in service delivery".⁹ How then does Canada perform in the use of these tools? Of all OECD countries, Canada is the only one that cannot report on the two key measures of service delivery

⁵ Statistics Canada (2013). The Daily, Tuesday Oct. 8, 2013. Skills in Canada: First results from the Programme for the International Assessment of Adult Competencies, 2012 (final) http://www.statcan.gc.ca/daily-guotidien/131008/dq131008b-eng.pdf

⁶ OECD (2012) PISA 2012: Key Results in Focus. http://www.oecd.org/pisa/keyfindings/pisa-2012-resultsoverview.pdf

⁷ OECD Education at a Glance (2012)

⁸ Ibid.

⁹ Ibid.

to young children: expenditure on ECEC as a percentage of GDP, and ratio of children to teaching staff in ECEC. What we refuse to know need not be remedied.

What this reveals is not just that Canada trails partner countries in ECEC. Far more significantly, it indicates that the absence of a concerted approach deprives us of the very tools we need to improve our performance in this key aspect of education.

Post-secondary education

We have observed that, compared with other OCED economies, Canada boasts the highest proportion of its population holding a post-secondary qualification – but that this assertion holds little practical value when the competencies of those participants are at the low end compared with other countries.¹⁰

In a November 2013 speech, the federal Minister of Employment and Social Development, Jason Kenney, noted one of the results: "The Ontario Employers Skills Survey conducted by the Conference Board estimated that this province is losing out on as much as \$24.3 billion in economic activity annually just because employers can't find people with the skills they need to grow." ¹¹

The Conference Board awards a "C" grade to Canada for its proportion of graduates in science, mathematics, engineering and computer science (STEM). In 2010, Canada ranked 12th among 16 OECD countries, based in part on "D" scores in engineering, computer science, architecture/building, and manufacturing/processing.¹²

Spending versus performance

Agencies such as the Conference Board tend to award countries higher grades on education if their expenditures on it are high. Thus, the Conference Board reckons that Canada merits a "B" on R&D spending in higher education and stresses that Canada places third highest in PSE expenditures globally. When R&D costs are excluded, Canadian spending per tertiary student is \$16,300. All other countries, except the United States, show expenditures per tertiary student below \$12,000. (See Indicator B1, Education at a Glance, 2013, Highlights for Canada.¹³)

Is there, in fact, a strong correlation between educational expenditure and performance? We have already seen that, despite high expenditures on PSE, Canadian graduates rank low in numeracy, literacy and problem-solving.

¹⁰ Statistics Canada (2013). The Daily, Tuesday Oct. 8, 2013. Skills in Canada: First results from the Programme for the International Assessment of Adult Competencies, 2012 (final) http://www.statcan.gc.ca/dailyquotidien/131008/dq131008b-eng.pdf

¹¹ Government of Canada (2013). Jason Kenney Delivers a Keynote Speech at the Skills and Post-Secondary Education Summit (2013) http://news.gc.ca/web/article-en.do?nid=792819

¹² Conference Board of Canada. How Canada Performs. (2014) http://www.conferenceboard.ca/hcp/default.aspx

¹³ Canadian Council of Ministers Education Canada (2013) PISA 2012, Highlights for Canada.

Switzerland is a federal state similar to Canada in that education authority is decentralized (although to a lesser extent than in Canada). Switzerland spends only 5.6 per cent of its GDP on education (OECD Education at a Glance, 2013) compared with 6.6 per cent for Canada and an OECD average of 6.3 per cent.

To determine whether Canada's high level of education funding translates into better performance in PSE, we can compare Canada with Switzerland, according to data from SERI¹⁴:

- □ Annual average of citations of scientific papers: Switzerland's score of 116 puts it in second place behind the United States. Canada is in 11th place with a score of 102;
- **Scientific papers per 1,000 inhabitants:** Switzerland ranks first, Canada 10th;
- □ **Patents per million inhabitants:** Switzerland is second to Japan. Germany is fourth and the United States ninth, while Canada is not even among the top 15.

Separately, we can compare scientific impact by country in various fields:

- □ In technical sciences/engineering/IT, Switzerland is first and the United States second. Canada is not in the top 10.
- □ In physics and chemistry, Switzerland is first and the United States third. Canada is ninth.
- □ In life sciences, Switzerland is first and the United States second. Canada is not in the top 10.
- □ In agriculture, biology and environmental sciences, Switzerland is fourth. Canada is not in the top 10.
- □ In clinical medicine, Switzerland is fifth, with the United States first and Canada eighth.

Note that in all of these areas, Canada lags larger countries such as the United States and Germany as well as smaller ones such as Switzerland.

University reputational surveys

Although reputational surveys of universities are not of enormous practical value, they do indicate global perceptions of quality. In the 2013 Times Education World Reputation¹⁵ rankings for universities, there were 46 U.S. institutions in the top 100, as well as 11 from the United Kingdom, eight from the Netherlands, six from Germany, five from Australia and four from Canada. Canada's highest-rated university was in 20th place; Switzerland had two in the top 20.

¹⁴ Federal Department of Economic Affairs, Education and Research, Switzerland (2013). Higher Education and Research in Switzerland.

¹⁵ Times Education World Ranking (2013) http://www.timeshighereducation.co.uk/world-universityrankings/2013/reputation-ranking

In other words, Canada is outranked in perceived university quality by countries both larger and smaller.

In summary, we outspend and out-credential almost all partners yet:

- □ Our graduates display relatively low levels of basic competencies;
- □ We are numerically weakest in those STEM (science, technology, engineering and mathematics) domains that are most closely aligned with innovation, productivity and economic success;
- □ Our universities collectively are viewed globally as not competitive;
- □ We lag in key indicators related to research, development and innovation.

Vocational education and training and workplace skills development

Canada's weaknesses in early education, K-12 and PSE might not matter so much if we performed well in adult education and literacy, initial vocational education and training (VET) and workplace-related skills development.

Regrettably, research by Statistics Canada¹⁶ indicates that the literacy skills of 42 per cent of Canadian adults between the ages of 16 and 65 fall below the level required for full participation in a knowledge society and economy. An even greater proportion lack health literacy skills – the ability to understand and use health information.¹⁷

Similarly, Canada rates below average in investments in workplace learning and development. A 2014 study by the Conference Board found that Canadian organizations – including private and public employers of all sizes – spent an average of only \$705 per employee annually on learning and development in 2012-13.¹⁸ This represents a decline of 40 per cent since 1993. According to the Conference Board, Canada consistently underperforms both in terms of participation rates and the number of hours of instruction per participant. For example, in 2008, 31 per cent of working-age Canadians received some form of job-related training, compared with 61 per cent in Sweden.

At the same time, Canada is one of the few advanced countries in which vocational education and training (VET) is relatively underdeveloped in secondary schools. In many of the world's most innovative, productive economies, half or more of all secondary school students are trained through VET. For example:

¹⁶ Statistics Canada and the OECD (2003). International Adult Literacy Skills Survey (IALLS).

¹⁷ Ibid.

¹⁸ Conference Board of Canada (2014) Learning and Development Outlook.

- □ **Finland**. As well as boasting the top-performing educational system in the Western world, Finland benefits from a simple, flexible but effective approach to VET. Graduates from the vocational stream can apply to attend university instead of a polytechnic; conversely, academic grads can attend polytechnics.
- □ **Korea**. Despite the fact that a substantial proportion (25 per cent) of secondary students are in VET, Korea rivals Finland at the top of the PISA rankings.
- □ **Norway**. Half of high school students attend VET and participate in apprenticeships. Substantial financial incentives are offered to VET students and to employers that hire apprentices. The results include very low secondary school dropout rates.
- □ **Germany**. More than half of Germany's secondary students are enrolled in VET. This training is highly regarded and prized. Both Germany and Austria offer a dual system, integrating school- and work-based learning.
- □ **Netherlands**. Here, too, half of secondary school students are in VET. Financial incentives are available for those who apprentice with companies.
- □ Switzerland. More than half the Swiss population possesses VET credentials an important driver of innovation and productivity. Most attend a Fachholschule (university of applied sciences), from which they may transfer to university if they wish.

Prior learning assessment and recognition

Prior learning assessment and recognition (PLAR) is the process of identifying and measuring the knowledge and skills that students have acquired outside the classroom, through work and life experiences. A well-developed PLAR system can encourage learners to pursue further education by giving them credit for things they already know and reducing the time and expense required to earn a diploma or degree.

Canada unfortunately, has no national system of prior learning assessment and recognition. In addition, there are considerable interprovincial barriers to mobility for both learners and people with documented training. The obstacles include: poor articulation of credentials across boundaries and between institutions; a seriously hampered and under-supported Red Seal apprenticeship program for mobility in the trades; and no national Qualifications Framework.

Apprenticeships

In a 2012 report for the G20 Task Force on Employment, the OECD notes that apprenticeship programs "have been proven to be particularly effective" in promoting smooth transitions from school to employment for "youth who have become disaffected with classroom-based schooling and are better suited to learning on the job".¹⁹ In Canada, these disaffected youth are typically male.

Yet in spite of the Canadian Apprenticeship Tax Credit, the Apprenticeship Scholarships and Employer Signing Bonus, the Ontario scholarships for dropouts who engage in apprenticeship training, and other provincial incentives:

- \Box Total registrations in apprenticeship training declined in 2011²⁰;
- □ The number of trade certificates awarded declined in both 2010 and 2011;
- □ By 2011, only 39 per cent of trade certificates awarded were with the Red Seal endorsement that permits national mobility, representing a multi-year decline from previous periods.

Experts in this field assert that the principal bottleneck in Canadian apprenticeship numbers resides in non-coordination of structures, and not insufficient demand by learners. Interest in apprenticeships is hampered by lack of mobility (including poor Red Seal accreditation) and by insufficient offers of placements by employers. Failure to complete is exacerbated by the difficulty in moving to jobs in another province while training is still underway.

Observations and conclusion from Section I

There is no stage of Canadian learning that now shows strength when compared internationally. Moreover, in no phase of learning are we putting in place the instruments that would promise a brighter future.

To fault educators for this state of affairs is unfair – akin to blaming construction workers for the collapse of a poorly engineered bridge. The great majority of educators are highly motivated professionals whose achievements occur despite our systems, rather than because of them.

To understand and remedy our failings, we must examine the engineering of the collapsing bridge.

¹⁹ OECD Note (2012) "Quality Apprenticeships for the G20 Task Force on Employment" 26 September 2012.

²⁰ Statistics Canada. The Daily. Registered apprenticeship training programs, 2011 (final)

http://www.statcan.gc.ca/daily-quotidien/130611/dq130611b-eng.htm

Section II: National frameworks

The fact that Canada is now falling behind many other countries in education and skills acquisition is not a crisis *per se*; it becomes a crisis only if we fail to act quickly and systematically to improve our performance. After all, many countries whose 20th century history was ridden with conflict and poverty have managed to leap into the learning lead – think of Korea and Finland, the two world leaders. What mechanisms and instruments do they possess that we lack?

A table presented by CCL in 2006 speaks volumes about the poverty of viable instruments that afflicts Canada's PSE. This portrait has not evolved in the intervening years. Although the table deals with higher education, it is equally valid for other aspects of the learning cycle.

Canadian Council on Learning (2006): Countries' planning processes and systemwide structures²¹

	MAJOR REVIEW IN LAST 5 YRS.	SYSTEM-WIDE GOALS & OBJECTIVES	FUNDING ALIGNED W/NATIONAL PRIORITIES	QUALITY ASSURANCE AGENCY IN PLACE	ONGOING MECHANISM FOR FEDERAL/STATE PLANNING	FEDERAL MINISTRY OF EDUCATION
Australia	Yes	Yes	Yes	Yes	Yes	Yes
EU	Yes	Yes	N/A	Under development	Yes	N/A
Germany	Related to unification	Yes	Tax sharing arrangement	Process under development	Yes	Yes
U.S.	Yes	Under review	Ltd. federal \$ targeted	Institutionally based	No	Yes
Switzerland	*	*	*	Yes	Yes	Federal Office of Education
U.K.	Yes	Yes	Yes	Yes	N/A	N/A
NZ	No	Yes	Yes	Yes	N/A	N/A
Canada	No	No	No	No	No. The provinces and territories meet as the Council of Ministers of Education, Canada. The federal/provincial/territorial Forum of Labour Market Ministers meets regularly to share information.	No. The federal department responsible for skills funds labour-market programs, research, literacy and other initiatives related to PSE.

*Available material is insufficiently detailed to permit conclusions at this time.

The most obvious comparisons for Canada are with other "federal" systems, many of which have a strong provincial/state jurisdictional emphasis on post-secondary education. Other non-federal examples are cited because they are countries of intense

²¹ Canadian Council on Learning (2006): The State of Post-secondary Education in Canada 2006. Canadian Postsecondary Education. A Positive Record – An Uncertain Future http://www.cclcca.ca/pdfs/PSE/2006/PSEReport2006EN.pdf

interest to Canada that have developed aggressive reforms and approaches to ensure their PSE systems meet national objectives.

This section briefly presents snapshots of a few mechanisms that other countries, in contrast to Canada, have set in place to promote conditions for educational success.

Germany

Federal/state cooperation in higher education²²

Germany's constitutional arrangements with respect to education parallel those in Canada. Responsibility for education resides with individual states (Länder), whose education ministers meet regularly in the Kultusministerkonferenz (Conference of Ministers of Education). Unlike Canada, however, Germany has endowed itself with a federal (Bund) ministry of education. Popular will has led to the steady extension of Bund activity beyond funding research and innovation in education and training systems. Often these new programs involve private partners – foundations, corporations, and trade associations.

Under the Higher Education Pact between the Bund and the Länder, the federal level provides funding for hundreds of thousands of new university students. The program is jointly administered by both levels of government, and is enabling a necessary expansion of access and quality in universities.

A movement is now underway in Germany to extend federal/state cooperation much further – to institutionalize it for the benefit of learners and PSE institutions.

In Canada, by contrast, the CMEC traditionally refuses even to meet formally with federal ministers or deputies, fearing they might intrude on the sacrosanct power of provinces in education and training. When federal officials are present, CMEC typically suspends its meetings, reconvening only after the departure of the federal guest.

Hence, although the federal government annually transfers funds to provinces and territories for PSE, there is no "pact" as in Germany – no agreed federal-provincial mechanism that allows for shortfalls in financing PSE spaces to be compensated by federal funds.

²² Cultural Affairs of the Lander in the Federal Republic of Germany. Higher Education. The Education System in the Federal Republic of Germany 2011-2012.

Prosperity founded on national coordination of VET²³

Since the Second World War, Germany has understood that its prosperity depends on skills and innovation. Unlike Canada, Germany has declined to allow disputes over the distribution of powers to erode its competitiveness and innovation.

At the heart of its economic success lies a national coordination of VET that draws industry, the Bund and the Länder into a successful tripartite arrangement.

The Länder have responsibility for schools, including vocational institutions, and receive advice on content from employer and employee committees. The Bund, meanwhile, is responsible for workplace training and skills development. In Germany's famed dual system, integration between school- and work-based learning is the rule, including for the majority of secondary school students who attend VET.

The key strength in the German system lies in the design of training. The private sector and both levels of government are involved, with industry taking a prominent role. Once principles for training in an occupation are agreed by all three, national recognition is binding, so that mobility is assured. The federal government has primary responsibility for implementing agreements. It also promotes dual training through a suite of national initiatives, including the Berufsbildungsgesetz (Vocational Training Act). It also monitors progress through the Bund Institut für Berufsbuldung (BIBB), a well-resourced national research centre of excellence that supports continuous improvement of VET. It is significant that the BIBB is a federally funded organization that enables consensusbuilding among all participating partners in VET.

The German system ensures close coordination and cooperation between levels of government and with social partners. The result is a relatively flexible national system that allows students from any K-12 pathway to attend post-secondary vocational and apprenticeship training.

The close involvement of employers and employees at the national and state level promotes a powerful sense of responsibility among corporations that is reflected in their commitment to skills upgrading in the workplace. Business associations supervise company-based training and advise participating companies. They also register apprenticeship contracts, assess the skills of VET trainers and training firms, and organize and supervise exams. In addition, companies fund training in the workplace while the Länder finance school-based VET. Companies take seriously their responsibility to create places for apprenticeships: the "training pact" between the federal government and social partners commits employers to offer a sufficient number of apprenticeship places to meet demand.

²³ Cultural Affairs of the Lander in the Federal Republic of Germany. Higher Education. The Education System in the Federal Republic of Germany 2011-2012.

At the PSE level, the collaborative efforts of federal and state governments with social partners are expressed in the admirable success of the German/Austrian/Swiss Fachholschule model. In these "universities of applied sciences", industry has the principal responsibility to develop and update course content, ensuring a close alignment with the needs of the labour market and the interests of students.

It is often argued that the "culture" inherent in the Germanic training model is unique and cannot simply be transposed to North America. There is truth to this argument. However, a "culture" does not originate in a vacuum. In Germany, the culture of cohesive cooperation in VET and workplace skills upgrading is rooted in a determination that all levels of government and social partners must consistently coordinate their efforts systemically, structurally, intensively and continuously.

Australia

Quality through harmonization in K-12 and ECE²⁴

Education in Australia is constitutionally a state responsibility. States are empowered to provide schooling, vocational education and training, and higher education. However, as in Canada, the federal government (Commonwealth) has used its spending power to intervene positively in education and training. There is a federal Department of Education and, in contrast to Canada's CMEC, the minister responsible for it is a full member of the national council of ministers of education and training.

According to the Australian government, "the Australian Department of Education is responsible for national policies and programmes that help Australians access quality and affordable childcare; early childhood education; school education; post-school; higher education; international education and academic research."

Australia achieves this without sacrificing state accountability and authority. States "determine curricula, course accreditation, and student assessment" and bear the cost of these. They also "administer VET and legislate the establishment and accreditation of higher education courses".

Reconciling and balancing state and federal interests in education and training is achieved through frameworks that provide for institutionalized cooperation, coherence and cohesion between levels of government. This fact is important to note because it suggests that, even in the absence of a Canadian federal department of education, cohesion may still be achieved provided that the requisite instruments are in place.

²⁴ Government of Australia. Working in Australia (2014). http://www.workinginaustralia.com/education/system/overview#.UxiMfk2A2Uk

In Australia, these instruments take the form of a joint federal-state education reform agenda that was signed in 2008 by the Council of Australian Governments (equivalent to Canada's Council of the Federation). Australia has six such national agreements in fields of social policy.

The agenda gave rise to a National Education Agreement (2012) and a National Skills and Workforce Development Agreement (2012). These agreements are not broad and meaningless expressions of wishful thinking of the sort that characterizes CMEC and Canadian federal government pronouncements. Australian agreements specifically define objectives, outcomes, outputs and performance indicators.

The National Education Agreement specified five outcomes, relating to both K-12 and further education and training, and established seven national partnerships to assist in achieving them. These include partnerships on:

- □ improving teacher quality
- \Box literacy and numeracy
- □ early childhood education
- □ youth attainment and transitions

It is important to emphasize the meaningful nature of goals set by these partnerships. For example, the national partnership for ECE specifies that, "All children will have access to quality ECE, delivered by a four-year university-trained early childhood teacher, 15 hours a week, 40 weeks a year."

The National Agreement for Skills and Workforce Development, meanwhile, cites four outcomes and institutionalizes two national partnerships as instruments to help achieve them.

The above is only a partial list of recent Australian initiatives. Within each initiative, strategies and programs address specific issues as they arise. Thus, for example, Australia has launched a national initiative to remediate the relatively poor performance of boys in school, with support from both levels of government.

Building for success and prosperity: Australian VET²⁵

From the perspective of learners and industry, what is the best way to ensure a skilled workforce?

Ideally, one would put in place a national training framework that would ensure both quality and proper credentialing – including a qualifications framework that indicates precisely what an individual should know and be capable of doing at each stage of learning. To ensure portability of credentials and mobility of trainees, there should be

²⁵ Government of Australia. Working in Australia (2014). http://www.workinginaustralia.com/education/system/overview#.UxiMfk2A2U

mandatory national recognition of programs across state/provincial boundaries and institutions. Industry should bear a large share of responsibility for the content of VET, to ensure that supply and demand are aligned. Finally, we would need an independent agency to monitor progress and measure outcomes.

Introduced in 1995, the Australian Qualifications Framework (AQF) aims to satisfy all of those needs.²⁶ It provides a single national framework encompassing higher education, vocational education and training, and schools. The aim is a seamless system through various phases of learning. A national AQF Council is responsible for ensuring that "qualification outcomes remain relevant and nationally consistent, continue to support flexible qualifications and linkages and pathways and enable national and international portability and comparability of qualifications." To that end, Australia is aligning itself to qualifications networks in Europe.

Among other objectives, the AQF:

- □ "contributes to national economic performance by supporting contemporary, relevant and national consistent qualification outcomes which build confidence in qualifications";
- "supports the development and maintenance of pathways which provide access to qualifications and to assist people to move easily and readily between different education and training sectors and between those sectors and the labour market";
- "supports individuals' lifelong learning goals by providing the basis for individuals to progress through education and training and gain recognition of their prior learning and experience";
- □ "underpins national regulatory and quality assurance for education and training";
- □ "supports and enhances the national and international mobility of graduates and workers through increased recognition of the value and comparability of Australian qualifications."

It is worth noting that accreditation of AQF qualifications is the prerogative of a range of organizations, including representatives of K-12 education, higher education and registered training organizations under the guidance of the Australian Skills Quality Authority. Also significant is that industry skills councils in Australia take responsibility for developing and reviewing qualifications, to ensure alignment with the labour market. While Canadian VET remains a confusing, barrier-ridden and static patchwork quilt, Australia is building a genuine system that will support individual goals and collective economic performance.

²⁶ Australia Qualifications Framework Committee (2013). Australia Qualifications Framework. http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF-2nd-Edition-January-2013.pdf

Switzerland: Harmonizing to remain competitive

Traditionally, Switzerland has been fiercely decentralist, with its 26 cantons proclaiming their autonomy. Official Swiss publications emphasize that the country does not possess a federal ministry of education. However, the resemblance to Canada is more apparent than real. The national government is in fact represented by a State Secretariat for Education, Research and Innovation (SERI) which has significant powers, including for governance and development of VET and professional education. The 26 cantonal governments are responsible for implementing federal legislation and supervising VET.

As in Germany, social partners and a national approach are critical to skills enhancement. Professional organizations – trade associations, VET providers, industry organizations and others – define the content and goals of VET programs as well as the procedures by which individuals obtain national qualifications. Although companies are not required to provide spaces for apprentices, in practice they commit strongly to this key component, as well as to in-company education and training programs and to working closely with Fachholschulen.

Switzerland's cohesive approach to VET helps to ensure its continued occupation of the highest rankings for innovation and international economic competitiveness. But the Swiss are not resting on their laurels. To ensure that it does not fall behind competitors, the country is now moving to harmonize all phases of learning, beginning in early childhood and including common approaches to K-12 and PSE – despite the fact that this process required constitutional change which itself demands successful referenda in each participating canton.

Harmonization does not imply sameness, emulation, or ignoring or foregoing local strengths and character. It does imply that learners should be able to proceed smoothly between institutions, wherever they are located within the country, and that common definitions and basic rules will apply.

In Canada's chaotic PSE sector, universities face little pressure to define their roles and consequently tend to emulate each other. In Switzerland, in contrast, harmonization of policies and practices is encouraging universities to differentiate themselves by focusing on their strengths and eliminating areas of weakness. The process allows students to choose the institution that most closely corresponds to their goals.

European Union: Trans-border approaches to education and training

In its radical decentralization, it may be argued that Canada – instead of resembling fellow federal states such as Australia, Germany or Switzerland – behaves like a transborder political entity like the European Union. Australia and Germany have federal education ministries and Switzerland has a State Secretary for Education. The EU has none of these. Without them, what models can it offer for Canadian consideration?

PSE

The European Community Action Scheme for the Mobility of University Students (known as Erasmus) is a student-exchange program supported by member states with a budget of 14.7 billion euros over seven years.²⁷ Both the scale of the program and the multiyear funding commitment underscore the commitment to coordinating PSE across borders.

Erasmus aims to improve cross-border learning opportunities within the EU to an extent not seen among Canadian provinces; and to promote partnerships among educational institutions and educational modernization and reform. Many millions of learners and thousands of educational institutions are involved. In addition, Erasmus supports professional development of education staff and promotes cooperation between the sectors of education and work.

VET in its "European dimension"

The Leonardo da Vinci program focuses on VET for both initial and further training. It has two key components. The European Credit Transfer in Vocational Education and Training (ECVET) promotes cross-border mobility of learners by facilitating the recognition of their training throughout the EU. The European Quality Assurance Programme (EQAVET) sets common standards for VET that permit member states to judge the quality and monitor the improvement of their vocational education and training efforts.

Da Vinci also promotes innovation in training systems by supporting transnational cooperative projects, by which countries may learn from promising practices in partner states.

Europeans have concluded that high quality VET, unimpeded by jurisdictional barriers, is in the interest of all members, and they have taken concrete steps to advance it.

Early childhood and K-12 education

As a component of the EU's Lifelong Learning Program, the Comenius program focuses on the early stages of education across member states, including ECE and K-12. In particular, it seeks to enhance partnerships among schools in different countries, thereby improving mobility. It also encourages innovation and continuous improvement in school management, teaching practices and materials, and teacher training. A variety of multilateral projects, each involving a minimum of six countries, develop pedagogy

²⁷ European Commission. Green light for Erasmus+: More than 4 million to get EU grants for skills and employability (Nov 2013) http://europa.eu/rapid/press-release_IP-13-1110_en.htm

and good practice in their subject areas, disseminating these broadly and providing support to partners throughout the EU.

Lifelong learning

The EU's Grundtvig program focuses on adult education in all its forms: formal, nonformal and informal. Similar to programs for initial education, PSE and VET, Grundtvig emphasizes the "European dimension". This implies that its projects and networks – involving associations, policy makers, NGOs, enterprises and researchers – systematically encourage the pooling of knowledge and experience across borders. The goal is to develop innovative results and products that can be widely shared among member states.

Conclusions

From the above examples, we do not necessarily infer that these other countries and continents enjoy results consistently superior to those in Canada today. For example, educational outcomes for aboriginal people are worse in Australia than in Canada. But they do illustrate that other countries are adopting policies and implementing measures that promote continuous improvement and optimise conditions for future success.

Education programs across the EU in particular cover the full range of learning phases. Member states collectively provide billions of euros annually in funding. The fundamental premise is that such programs are vital contributors to the opportunities for improvement in each individual country.

The example of the EU illustrates a key point: jurisdictions require neither a single strong national culture nor a national minister of education to develop the frameworks that make progress possible. It is, after all, a matter of political will and public support.

Section III: Setting goals

We observe in Section II that many countries create intergovernmental frameworks to facilitate learning success. The second key step is the articulation of national targets.

National learning objectives can be defined in terms of inputs or in terms of outcomes. Sometimes, they are a combination of both. For example, as described in Section II, Australia intends to commit highly trained early-childhood educators (inputs) for a specified period (inputs) to achieve high quality ECE (outcome). Occasionally, input goals are so clearly related to known outcomes that they are significant, as long as their attainment is measurable. This is the case, for example, for national expenditure on R&D as a percentage of GDP.

Ideally, outcome goals will:

- □ describe the current performance to be used as a benchmark;
- □ state the improvement required in percentage terms, absolute numbers, or both;
- □ define a time period over which the goals are to be attained;
- □ commit to a clear method for public reporting of results;
- \Box identify the inputs required to achieve these goals.

We note that all these elements are **time-specific** and **measurable – and that the results are conveyed to publics.** This last point ensures accountability even when, as in the case of transnational entities such as the EU, there is no legislation or sanction if stated outcomes are not achieved. National or regional public opinion will hold policy makers to account.

Typically in Canada, the very few statements that are publicly enunciated in the learning field are risible in their lack of specificity and seriousness. In fact, Canada has articulated not a single measurable outcome goal as defined above. Instead, those with interest or responsibility for education and training tend to talk of their ambition that Canada "do better", "improve", or "continue to be competitive". A favourite line is, "There is always room for improvement". This sort of terminology is common language at CMEC because its ministers and staff cannot actually speak for all except in vague terms.

It is often stated that, "What gets measured gets done." The absence of measurable Canadian goals for any aspect of learning and training no doubt helps to explain our stagnation, with all its consequences for individuals and for economic productivity. Why have our leaders not set measurable goals? Simply put, it is no-one's clear and designated responsibility to do so.

This section examines the models that some other jurisdictions use to set measurable goals.

Goal-setting as key to progress in learning

We have already observed that the European Commission, through transnational policy bodies and its Directorate-General for Education and Culture, has put in place multiple instruments for collaborative advancement of learning – mechanisms that contribute to improved outcomes in individual member states. We now examine the second part of the EU success equation: the collective goals that those platforms are designed to achieve.

Europe 2020²⁸

The EU has established five broad goals in areas of social policy –including R&D and education – to be achieved by 2020. For R&D, the goal is a mixed input/output objective of three per cent of the EU's GDP to be invested in R&D. For education, specific percentage reductions in secondary school dropout rates (to below 10 per cent) and increases in completion of tertiary education are required for 2020.

Europe 2020 is the EU's 10-year growth strategy. The flagship collaborative initiatives cited in Section II are integral components of that strategy.

In stating its headline objectives, the EU fulfills all the requirements for serious goalsetting. It benchmarks current levels of early school leaving (12.7 per cent in 2012) before stating a realistic goal for 2020, requiring a reduction of 5.5 million dropouts. Similarly for participation and completion of tertiary education, it observes current attainment at 35.7 per cent before establishing a target of 40 per cent or more. Reporting, leading to public accountability, is partially satisfied through the Education and Training Monitor, which publishes the results for the EU and its members. Finally, the European Commission provides, through extended analysis and deliberation, a rationale for its selection of these objectives.

Beyond its "headline objectives", the EC sets targets for a broad range of other aspects of education and training, beginning with an exhaustive analysis of the current situation for each aspect, both in the EU as a whole and in each individual country.

Among other targets, the EC has set 2020 goals for: the proportion of young children in ECEC; the share of 15-year-olds performing below level 2 in reading, mathematics and science as measured by PISA; the employment rates of recent graduates from secondary school or PSE (within a prescribed period of time); and adult participation in lifelong learning.

²⁸ European Commission. Europe 2020 in a Nutshell. http://ec.europa.eu/europe2020/europe-2020-in-anutshell/index_en.htm

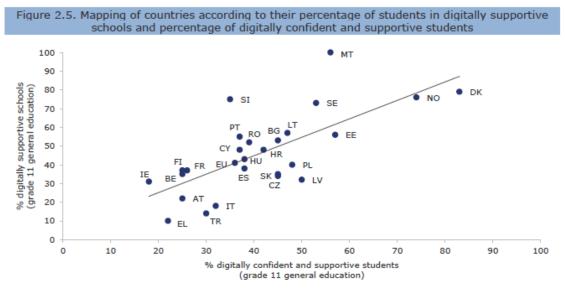
The Education and Training Monitor (2013) is published in two parts. The first part examines issues and sets targets for the EU as a whole. The second part "reports the performance of each member state as regards the main benchmarks and indicators". In order to supply quantitative and qualitative evidence on each country, the monitoring methodology uses a Joint Assessment Framework that requires definitions, timelines and concepts that member states share.

Canada, by contrast, offers a hodgepodge of reporting – where it exists – using varied definitions, timetables and indicators across provinces and even within provinces in some cases. As a result, we know little about national performance or the comparative performance of individual provinces. The exception in Canada is our ability to discern national and regional outcomes for secondary school students through standardized testing. But that exception exists largely because the OECD's PISA processes facilitate interprovincial as well as international comparisons.

The inability to derive useful indicators and benchmarks beyond secondary school carries for Canada two regrettable consequences. First, because K-12 education has traditionally constituted our main (although declining) strength in education and training, it allows us more comfort than might be afforded by quantitative study of other outcomes. Second, by focusing on a singular aspect of the learning cycle, it both underestimates the significance of the others; and tends to lay responsibility for regression unfairly on the backs of educators, instead of on the structural issues that are the systemic cause of that regression.

The follow pages provide a few examples of the extensive public reporting offered by the European Commission's Education and Training Monitor 2013.²⁹ Below, Figure 2.5 shows how member states differ in their ability to offer technology-rich learning environments. Such mapping is possible only if each state uses a common assessment framework.

²⁹ European Commission (2013) Education and Training Monitor.



Source: European Commission (2013): "Survey of Schools: ICT in Education. Benchmarking Access, Use and Attitudes to Technology in Europe's Schools". Note: The plot covers grade 11 of general education, 2011-12. All EU28 countries are included except DE, HR, NL and UK.

The EU also reports on the degree to which member states use a common qualifications framework (QF). The QF sets out clearly what learners know and are able to do, regardless of where they reside. An illustration: Europeans learning a foreign language gauge their progress according to six common levels of attainment. Thus someone at level B1 in French has similar competence and qualifications as someone at level B1 in Portuguese. In such a system, grades are not the essence; measurable competence is what counts.

The core of EU benchmarking and goal-setting remains quantitative. As an example, Figure 3.1 neatly encapsulates the reality for all member states with regard to early school leaving in 2012.³⁰

³⁰ European Commission (2013) Education and Training Monitor.

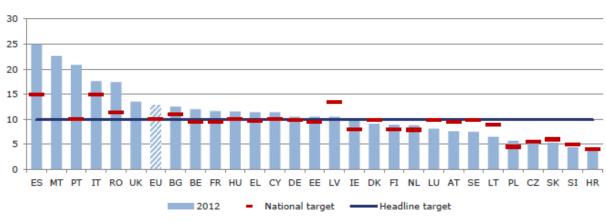


Figure 3.1. Early school leaving (2012)

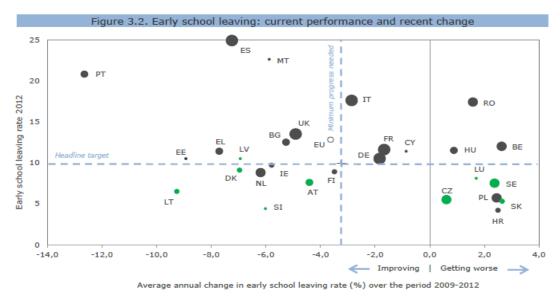
Source: Eurostat (LFS) as cited in European Commission (2013) Education and Training Monitor, p 25.

For each country, we find three numbers: its current performance, the national objective, and the headline or common objective of the EU as an entity. Where there is an unfavourable gap, as in Spain or the UK, public opinion can hold political and bureaucratic feet to the fire – even though there exists no legislative compulsion through the EC.

In Figure 3.2, the EC Monitor maps trend lines by country, which also adds to the national pressure to improve. One would not wish to be the education minister in a country where dropout rates are above the EU average and getting worse.³¹ In Canada, by contrast, we merely grumble, "Gee whiz, there are too many dropouts. We should do better."

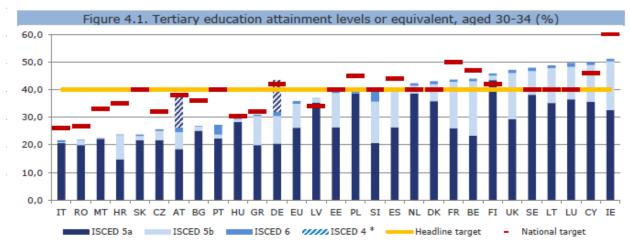
Source: Eurostat (LFS).

³¹ European Commission (2013) Education and Training Monitor.



Source: JRC-CRELL and DG EAC calculations based on Eurostat (LFS) data. Member States having already achieved their national targets are marked in green. Countries are shown according to their 18-24 cohort size, with five categories. Further notes: the average annual change rate is artificial for countries with a break in series, i.e. NL (2010) and LV (2011).

In the domain of PSE, Figure 4.1 on attainment rates demonstrates that common goals for EU members do not substitute for inter-state competition or the prerogative of member states to establish their own realistic targets, taking account of immediate priorities and constraints. ³² Thus, it is reasonable that Romania will set goals that are more modest than the EU headline target, just as it is reasonable for Ireland to be more ambitious.



Source: Eurostat (Labour Force Survey). * The dashed additional bars for AT and DE denote the postsecondary attainment qualifications included in the definition of their respective national targets (ISCED 4 for DE and ISCED 4/4a for AT, both national data). For FR, the 50% national target refers to the age group 17-33 years old. For FI, the national target is defined more narrowly than the EU headline target and excludes technological institutes.

³² European Commission (2013) Education and Training Monitor.

It is also notable that many countries (nine in this case) have adopted the common target as their own. This illustrates how inter-jurisdictional collaboration and benchmarking can assist countries in their own processes of goal-setting and prioritizing.

In areas of learning where there exists some contention regarding appropriate goals, the EC Monitor reports rates in member states but refrains from setting targets. National governments may then choose to use the data in their own policy deliberations. An example is the proportion of secondary school graduates who are engaged in VET. Although there may be advantages and disadvantages to encouraging high proportions of high school students to participate in VET (Figure 5.1), countries find it valuable to compare with partners when deciding on policy in this regard. Would they prefer the Austrian model of high VET participation or Ireland's low VET participation?³³

Table 5.1. Students in school- and work-based learning and youth unemployment ratios					
	Percentage of ISCED 3 students in work-based VET programmes (2011) ¹²³	Unemployment ratios of rece Upper secondary education	ent graduates (2012) Tertiary education		
Belgium	3.1	17.6	6.8		
Czech Republic	31.8	17.4	(6.5)		
Denmark	44.7	10.5	9.7		
Germany	42.9	8.6	1		
Estonia	0.3	22.7	(7.6)		
Ireland	5.0	37.9	13.6		
Spain	1.9	45.9	29.4		
France	12.0	23.9	12.4		
Hungary	16.6	28.5	9.9		
Netherlands	20.9	6.2	5.6		
Austria	34.8	6.3	1		
Poland	6.6	26.7	12.5		
Slovenia	0.1	(26.9)	16.9		
Slovakia	29.0	34.2	15.7		
Finland	11.7	14.7	7.8		

Source: Eurostat (UOE and LFS). Notes: 2010 data are used for IE and NL; "()" = Data lack reliability due to small sample size; ":" = data not reliable due to very small sample size (below 3%). The unemployment ratio of recent graduates is calculated as the share of unemployed persons aged 20-34 with upper secondary (incl. post-secondary non tertiary) or tertiary qualifications out of the population of the same age and educational attainment level. The ratio refers to people who left education within the last three years and who are no longer in education and training.

The publication of comparative unemployment rates by country and field of study helps to inform policy decisions and gives individual learners valuable evidence on which to base their choices. For example, the Monitor and Training Report shows that the overall unemployment rate for recent secondary school graduates in France is 23.9 per cent, compared to 12.4 per cent for recent VET grads.

No comparable data is available in Canada because we have not determined that national monitoring through common definitions and standards is important. Consequently, our policy makers are shooting darts in the dark – or, more probably,

³³ European Commission (2013) Education and Training Monitor.

making individual decisions based on opinion and bias, rather than evidence. In Canada, we do not even possess accurate information about how many students we have – or how many graduates – in any particular field.

Conclusions from the EU goal-setting model

- 1. Establishing targets collectively and with clearly defined timelines and public reporting of outcomes constitutes one of the EU's most successful means of promoting progress across the learning lifecycle.
- 2. The collaborative instruments that the EU has established (see Section II) are designed to assist in the attainment of shared objectives.
- 3. Goal-setting drives policy, which in turn determines the evidence that the EC accumulates. Collection of evidence and setting of goals go hand-in-glove.
- 4. The reporting of outcomes publicly for all member states is a powerful means of inducing change, without the need for legislation.
- 5. Member states fully preserve their autonomy in education and remain free to establish their own goals.
- 6. Collective benchmarking and goal-setting requires that all partners agree to standardize collection of information, frameworks for intervention and methodologies for assessing progress and commit to doing so on a sustained basis.
- 7. The benefits of benchmarking and the analysis required to support it are farreaching. They assist individual learners to make informed choices and allow policy makers to make decisions rooted in evidence. They also improve the ability of social partners, including industry, to be both helpful to educational processes and make choices that help them succeed.

Section IV: The role of industry

We have seen in earlier sections that constitutional change is not a core requirement for a coherent national education system. Nor does it depend necessarily on increased public investment or the presence of new government departments or additional civil servants. The three requirements are: 1) setting measurable, tangible national goals; 2) creating the platforms and frameworks needed for cooperation and collaboration among levels of governments and with social partners; and 3) ensuring the active participation of industry in those structures and mechanisms.

The private sector's credibility in the learning field depends on its ability and willingness to show leadership in these three dimensions. In addition to supporting industry's *bona fides* to comment on education issues, working towards these dimensions will inspire others – especially governments at all levels – to admit the possibility of positive change in the direction of coherence.

By its example, the private sector can show governments what is possible, and can help to create the necessary public pressure for a workable national system that benefits learners and their families, educational institutions, employers and employees.

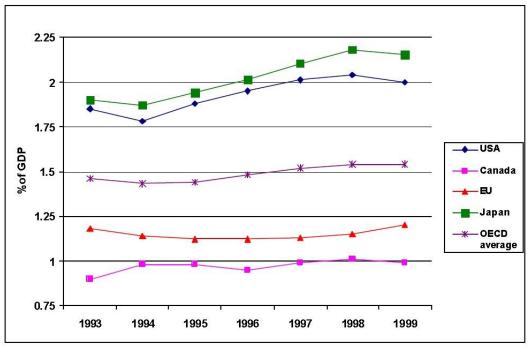
Setting measurable goals

Research and development

Economic growth and productivity are powered in large part by R&D and by workplace learning and skills upgrading in combination with excellent systems of initial vocational development.

With respect to R&D, we have noted that the EC's target for 2020 is that a minimum of three per cent of EU GDP be expended on this critical element of innovation. The chart below shows why the EC was concerned: At the beginning of the 21st century, R&D in the EU significantly lagged Japan, the United States and the OECD average.

Chart 1: Business expenditure on R&D



Source: EU Commission Report on Research and Development Annex E 2002 (OECD 2000g)

Note from the table that private spending on R&D was lowest in Canada. Note, as well, that Canada, unlike Europe, has no coherent strategy to improve its performance in this area. Instead, governments have been attempting to "take up the business slack" and to invest more heavily in R&D than do educational sectors in other countries.

There are pernicious unintended consequences to this unfortunate balance between private and public funding of R&D. Much of the public funding comes from the federal government, which is allowed to invest in that aspect of PSE but not in teaching and learning. While welcome, this funding often requires adjustments and matching funding that provinces cannot afford. This in turn has created federal-provincial tensions that have impeded initiatives for improved cooperation and collaboration. In other words, insufficient business investment in R&D leads us further away from a national strategy for PSE.

In R&D, therefore, the task for Canada's private sector is to establish measurable goals for its own activities. In Brazil, mandatory investment in R&D of a minimum of one per cent of revenue (in certain sectors) has spurred an enormous growth of research capacity and the innovation that is driving Brazil's economic success. As in Brazil, Canada's business community could decide to establish minimum levels, which might differ by sector or company size. Or it could fix a goal for the country as a whole and as a percentage of GDP with regional variations in the short term. Those targets would include reasonable but robust increases in business R&D and smaller adjustments to public R&D.

Setting realistic goals, with monitoring oversight and public reporting, would strengthen the position of industry in calling for a national educational strategy as well as generating enormous direct benefits for learning, productivity and innovation.

In-company education and skills upgrading

As with R&D, the business sector's poor performance in workplace training and skills development undermines its potential influence on education strategy.

The procedure required here is analogous to that already outlined for R&D. Let industry set targets in similar fashion, for both the short and medium term. National goals should be stipulated for: average expenditure on training per employee; employee participation rates; and number of instruction hours per adult participant.

It would also be helpful to take into account current and planned future participation rates and expenditures by businesses in partner countries in the process of assigning specific Canadian objectives.

VET and apprenticeships

As discussed above, well-developed VET at both the secondary and tertiary education levels promotes continuous individual engagement with learning – lower high school drop-out rates and higher tertiary completion rates – as well as knowledge-based economic development.

In North America, unlike some other OECD countries, employers do not eagerly take responsibility for training future generations. Indeed, the biggest constraint on apprenticeship placements and completions in Canada appears to be the difficulty potential learners experience in securing those positions in industry. Canadian employers will need collectively to stipulate targets for these placements, while again allowing for differentiation according to size and sector. However, there is no room for vagueness in overall national objectives over both the short and medium term.

National initiatives that advance learning

If establishing national goals is one requirement for successful learning systems, building the instruments to reach them is another.

We have noted that one such instrument would be a commitment by business to increase apprenticeship opportunities. Other potential measures include:

□ Employers should invest collectively in shared methodologies to assess the quality of in-company training programs.

- □ The public and private sectors should work together to clarify the principles and conditions under which it is reasonable for governments to provide incentives for company training and education.
- □ Employers and their associations should work with K-12 educators to expand the availability of vocational co-ops and apprenticeships.
- □ Employers collectively should work more closely with post-secondary educators, polytechnics in particular, to ensure closer alignment between labour market needs and the skills of graduates.
- □ Employers should work closely with educational authorities and the federal government to develop a national system of skills recognition similar to the European Skills Passport and the European Credit System for VET, which documents all the skills acquired by an individual. Another model is the Japanese Job Card, by which all the competencies acquired by individuals during training, education or experience are formally and objectively evaluated and recorded in a single document.
- □ Industry should cooperate in the development of a national qualifications framework that defines the learning expectations for each qualification level and type.

Part V: Federal leadership

How can Canadian governments, industry and other sectors work together to create conditions for future success?

The first four sections of this paper have indicated the depth of the challenge we face, but also the considerations underpinning coherent national systems elsewhere: setting measurable goals and building frameworks that promote national cohesion and coherence in education and training. In addition, we have described how industry could assume its share of responsibility and leadership for education and skills development.

We now turn in this final section to the way governments in Canada must function in any serious attempt to give success a chance.

Intergovernmental cooperation: basic principles

What frameworks are required to ensure that all levels of government cooperate fully – as they now fail to do – in the interest of the learning futures of Canadians of all ages?

We begin by restating a few basic facts and principles:

- 1. National approaches can help to advance individual opportunities and outcomes, while enabling jurisdictions and communities to achieve their own objectives.
- 2. Countries and jurisdictions that set measurable goals are much more likely to progress rapidly in the learning field than those that do not.
- 3. Canada's constitution does not prohibit federal involvement in matters of education and learning. Nor is any constitutional change required to establish national frameworks that would enable the attainment of Canadian goals throughout the learning cycle.
- 4. The stipulation and achievement of learning objectives at all stages requires intense, continuous and targeted collaboration between levels of government.
- 5. Intergovernmental bodies must find appropriate and continuing mechanisms for intense involvement of industry, other social partners and educational institutions.
- 6. Unanimous consent of all jurisdictions must not be a requirement for action.

A framework for Canada

A national Council of Ministers for Learning and Training

The primary recommendation of this paper is that Canada requires a federal-provincialterritorial body – a Council of Ministers, in other words – that provides leadership in learning and training. Such a body would be analogous to the council responsible in Australia for education and training, or to the European Commission's Directorate-General for Education and Culture.

The Council would publicly articulate national targets for each stage of learning, over the short and long term. It would also be accountable for results. It would not administer educational programs and institutions at the provincial/territorial level, but would have authority to set policy and administer new national programs in support of clearly defined goals. In that sense, it would be a platform for national strategic planning. It would require a two-thirds majority of its members to proceed with policies and programs – with the federal government, as in Australia, having one vote.

This model would allow "the E-word" to be used and acted upon by the federal government as routinely as in other countries worldwide. It would not require the creation of a federal education ministry as in Germany, India or the United States – an approach that many would argue does not suit the Canadian socio-historical context.

The model subscribes to the notion of "build it and they will come". The history of intergovernmental relations in education indicates that initial resistance by some would abate over time, as national strategies and programs demonstrate success and gather public support. In this dynamic, both the federal government and cooperating provinces and territories would need strong support from social partners, especially the business sector.

Under the remit of the Council of Ministers for Learning and Training, a national monitoring body would independently assess national progress on targets articulated by the Council and report them publicly. There should also be several smaller monitoring bodies, acting either separately or under the umbrella of the national monitoring group. Each stage of learning would possess this vital instrument. For example, there would be a cluster for assessing progress in PSE and another for the evolution of ECE.

A number of advisory bodies would operate under the auspices of the Council. These advisory groups would be specific to each phase of learning or particular pressing issue. They would include both governmental representatives and experts from interested national organizations.

Priority areas for creation of standing advisory bodies would be: PSE, ECE, training for the workplace and VET, aboriginal learning, adult learning and competencies.

Setting targets

Having discussed the need for a collaborative intergovernmental framework, we consider briefly how goals and targets should be established for each phase of learning.

Most important is to understand how crucial the process leading to determination of goals can be. It is far more important than the objectives themselves. This is because the approval of targets in itself creates a moral and public obligation for governments and their civil society partners. The stipulation of targets, accompanied by independent monitoring, ensures accountability.

This fact explains why provincial education ministers and their staff often resist the idea of pan-Canadian objectives: the establishment of such goals would allow citizens to hold them to account. Why should they vest any of their power in a collective enterprise unless there exists some public pressure to do so, and unless they are being held responsible not just for their provinces but collectively for Canada as a whole?

Establishing shared goals creates a new dynamic that, as we observe in jurisdictions such as the EU and Australia, leads to convergence, cooperation and cohesion. It encourages governments to cooperate on a range of key issues in order to achieve common goals. Far from encouraging conformity, harmonization leads to enhanced innovation and differentiation as educational institutions and jurisdictions seek different ways of achieving shared goals.

The optimal approach to determine pan-Canadian goals flows from the example of the EU, where independent states have invested some of their sovereignty in a shared project, in order to maximize their individual and collective advancement.

One of the first tasks of the Canadian intergovernmental council for learning and training should be the consideration of realistic headline targets for each phase of learning. An example is the determination by the EU to reduce the proportion of early school leavers by a prescribed amount over a specified period of time.

A principal remit of advisory groups to the Council would be to define those intermediate or facilitating targets that make possible that major goal. For example, if a percentage target for R&D spending as a share of GDP is agreed as a headline objective, a complementary goal would be to appoint a target for business investment in R&D.

Critique of the framework

Anticipating possible objections to the model, the following questions must be addressed:

- □ Is the framework too complex? The current clear distinction between the roles of the federal level and the provinces leaves education with the latter. Why not just let them get on with it?
- □ Wouldn't it create additional layers of red tape?
- □ What could induce provinces and territories to participate?
- □ Wouldn't this approach be too expensive, an unnecessary drain on taxpayers?
- □ Is this model supported by similar experience in other countries?

Complexity of the model

Education policy has too frequently been treated unfairly as a matter of opinion. But sound policy and practice demand good information and analysis. We need to know what works and what does not.

Education is also complex. For example, the education systems of the two countries that rank highest in PISA scores – Finland and South Korea – could hardly be more different. Many factors and conditions are at play and it necessitates much work to tease out the commonalities that allow us to understand why each functions successfully.

The model proposed here may appear complex because it involves many different governments and interveners from civil society. But that is precisely the point. Learning must be understood to be a shared responsibility, not just a concern of government. Sharing responsibility implies systematic collective effort in a coordinated structure.

If we leave it only to government, we fail to benefit from the expertise of social partners. We also lose their sense of "ownership". We have detailed the contributions that the private sector must make in education and training. Is industry likely to follow through on these requirements if it is not deeply engaged as a partner?

If a rigid division of powers between federal and provincial/territorial levels best reflected reality "on the ground", then our current approach in education would be justified. But we know that learners are mobile. Employers are national and international. Educational aspiration just refuses to confine itself within provincial borders. It is because of the current – simple – rigidity that Canada finds itself in an educational and training mess.

Does this framework create additional red tape?

It is important to remember that the proposed model would not be legislated and would not require regulation. The intent is to create platforms to advance educational policy and practice by inducing coherence from which learners benefit, without government fiat.

The groups proposed under the model respond to three specific elements that this paper has established as requirements for sustained Canadian progress in the learning field: frameworks that engender cooperation and enable improvement; measurable goals, the achievement of which must involve various levels of government; and the participation of social partners. The latter is not "red tape". These are the organizations – representing business, labour, educational institutions, communities and NGOs – that possess real-world expertise. They are the indispensable partners of government in discerning problems, establishing priorities, and advising on data and other information that makes it possible to ascertain progress. Any framework that does not encompass these three elements will not advance us sufficiently.

What could induce provinces and territories to participate?

While all provinces and territories deplore federal unilateralism, experience suggests that most prefer an ongoing dialogue and sustained coordination with the central government – an approach that would, in fact, reduce any federal tendency to engage in unilateral action. This, in turn, suggests that a strong majority of provinces and territories would participate in a cooperative mechanism such as proposed here.

Unfortunately, successive federal governments over the past four decades have hidden behind the constitutional division of powers respecting education, either because they did not wish to expend resources in this area, because they were ideologically opposed to shared activity in social policy – or, most commonly, because they were too timid, afraid of accusations of intrusion.

The emergence of a framework such as the one proposed here would provide the central government with a tangible and collaborative means by which it could intervene positively.

Provinces that oppose any federal "intrusion" – even one as mild as the proposed model – should be encouraged to refer to the EU system, which integrates the education systems of sovereign states. If they remain unconvinced, they could choose to stay outside the framework and receive no funding from it. They will most probably join in due course. Most significantly, provinces and territories will have incentives to participate because, as the OECD emphasizes in many of its reports, a coherent national framework, including national goals, makes it far more likely that regions will attain their own objectives.

Is it too expensive?

Resources will be required to sustain the proposed platform because the intention is to institutionalize its various components. The fact that a government or a Council meets once with a social partner to hear its advice is of limited use. We have observed from the EU, Australia and elsewhere that consultation must be ongoing to be effective.

If, for example, governments believe that business should take increased responsibility for apprentices, for in-company training, and for high school VET – as is the case in many OECD countries – it will take more than a simple meeting with business leaders. A framework that involves the private sector systematically and continuously will be required.

Some resources from Ottawa will be needed to support the capacity of provinces to work collaboratively in this framework, especially for data-gathering and policy.

Is it supported by similar experience in other countries?

No country is precisely comparable to Canada in education since every other country has either a central department or an office for education.

In unitary states such as Finland, Korea and France, the central government decides policy and practice. Nevertheless, some of these have developed platforms that can systematically engage civil society – in particular the business sector because of its influence on training and skills upgrading.

In federal states such as Australia, Switzerland, Germany and others, we have observed how strongly governments embrace the need for coordinated national strategies. It is true that the prior existence of a federal department (or office) of education in all other federal states facilitates the process of partnering. Even in its absence, however, the fundamental value of intergovernmental collaboration is clear. The need for a national education strategy or framework might not be accepted universally in Canada, but in other countries it would be understood as obvious common sense.

Federal leadership in establishing the Council

While the example and support of industry are vital, only the federal government can provide leadership for the creation, funding, maintenance and success of an intergovernmental council for learning and training.

The traditional and constant refrain of provinces is to remind the federal government of their (legitimate) financial entitlements. But no provincial Minister of Education is accountable for education across Canada. Those few who attempt to shoulder some national leadership are quickly brought into line.

CMEC exists first and foremost as a bulwark against federal "intrusion" in what it incorrectly interprets as an exclusive domain of the provinces. Unless its *raison d'être* changes radically and unexpectedly, it will never solicit the creation of a federal-provincial authority.

In countries such as Germany and the United States, large foundations can play an initiating and catalyzing role. This is especially the case in Germany, where there is a longstanding tradition of foundation interest and activism in education and training. Unfortunately, Canada lacks both this tradition and the presence of richly endowed foundations.

In what branch of the federal government should the initiative be vested, at least initially? For three reasons, Employment and Social Development Canada (ESDC) would be the most likely prospect. First, it has not walked timidly on as many education eggshells for as many years as did its predecessor, Human Resources and Skills Development Canada (HRSDC). Second, the existence of a federal/provincial/territorial body dealing with employment matters – the Forum of Labour Market Ministers (FLMM) – would facilitate the transition to a broader function. Third, explicitly linking education and labour market issues through this instrument would bring the interests of employers and employee groups directly and immediately into the framework.

Finally, it must be emphasized that this framework will be created only if there is sustained and strong pressure from Canadian publics and organizations, especially from the private sector. Educational complacency and jurisdictional parochialism are too deeply rooted for it to be otherwise. If change is not demanded stridently and frequently by social partners – and voters – it will not happen.

A final word

It must be acknowledged that the challenge, given the history and politics of education in Canada, is not small. As Shakespeare wrote: "If to do were as easy as to know what to do, chapels would be churches and poor men's cottages princes' palaces."

The goal of this paper has been to articulate the means by which Canada may propel advancement of education and training across the country. Courage and leadership from the federal government is required. A positive collaborative stance by provinces and territories must emerge. The contributions and initiative of social partners, especially within the business sector, are vital. Most of all, Canadians need to understand how and why a national strategy is imperative.

Even if it is crystal clear that Canada must move quickly to remedy its learning deficits, have we the political will to do so?

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