DOCUMENT RESUME

ED 459 328 CE 082 677

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TITLE Career Education and Labour Market Conditions: The Skills Gap Myth.
PUB DATE 2001-00-00
NOTE 18p.
PUB TYPE Opinion Papers (120)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Education; Competence; Competition; Developed Nations; *Education Work Relationship; Educational Benefits; Educational Needs; *Educational Objectives; Educational Policy; Educational Trends; Employment Level; Employment Opportunities; Employment Patterns; Employment Projections; Employment Qualifications; Foreign Countries; Human Capital; Job Skills; Labor Economics; Labor Force Development; *Labor Market; Position Papers; *Relevance (Education); Role of Education; Salary Wage Differentials; *School Effectiveness; Secondary Education; State of the Art Reviews; Technological Advancement; Trend Analysis
IDENTIFIERS *British Columbia; Neoliberalism; United Kingdom; United States

ABSTRACT

The rhetoric surrounding career education programs was examined by exploring two questions. The first question was which employment sectors anticipate significant job growth and what skill levels and academic competencies were required to work within those sectors. The second question was whether increasing the level of student knowledge and skill made a difference in addressing the problems identified as the motivation for various skill initiatives in career education programs. The analysis focused on labor patterns in British Columbia. The analysis established that little evidence exists to support the widespread assumption of a growing skills gap separating the academic abilities of students leaving secondary school and the actual competencies required for current and projected employment opportunities. Rather, the major job growth areas in Canada and other industrialized countries appeared to be in low-salaried, low-skill service occupations in the hospitality, food service, and retail sectors. The assumption of many policymakers that a highly skilled labor market protects national competitiveness and that investment in education and training helps form the human capital that is vital to ensuring economic growth and individual advancement and reducing inequality were also concluded to be flawed. Career education was called a reflection of neoliberal ideology. (Contains 29 references.) (MN)

Running head: THE SKILLS GAP MYTH

Career Education and Labour Market Conditions:

The Skills Gap Myth

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Overview

This paper investigates the rhetoric surrounding career education programs and contrasts it with labour market realities by addressing the following questions:

- What employment sectors anticipate significant job growth, and what skill levels or academic competencies are required to work within those sectors?
- Will increasing the level of student knowledge and skill make a difference in addressing the problems identified as the motivation for various skills initiatives in career education programs?

The first section of this paper identifies the prevailing assumptions behind, and justification for, enhanced skills instruction in schools by examining the rationale supporting a range of career preparedness policies and programs. The second section evaluates the conviction that skill deficits, or gaps, are actually causing labour market supply problems for industry and unemployment for workers by investigating current labour market trends. Section three reviews B.C. labour market patterns to compare them with international trends and considers whether the skills required to work in job sectors where growth is anticipated can, or should be, targeted by career preparedness education. Sections four, five and six consider why, in the absence of demonstrable evidence, the existence of a knowledge and skills gap is generally assumed by career education policy advocates. Finally, the two questions identified above are addressed in the paper's summary and the implications for career education reform considered.

The Rationale for Career Education

The assumptions supporting career education in public schools are believed to reflect labour market and economic realities. In 1995 the British Columbia Labour Force Development Board released Training for What?, a document addressing three major questions related to provincial employment and education: 1) Where will work be in the future? 2) What skills will be required for this work? and 3) How can BC best organize its learning system to address these skill needs? The board suggests answering these questions is crucial to ensure students gain the necessary skills to participate fully in the so-called knowledge economy and refers to its research as a "public policy issue of the highest priority" (p. 1)

Training For What? complains that a skills gap separates the occupational competencies British Columbians presently possess from those required for employment both now and in the future. Bridging this gap means encouraging students to enhance their occupationally relevant knowledge and skill. According to the document, enhancing the knowledge and skill of workers is necessary to improve the province's international competitiveness within the burgeoning global economy: "British Columbia is in the midst of a fundamental shift from a resource-based economy . . . characterized by international competition and constant technological change. In this New Economy, education and training arguably provide the single most competitive edge" (B.C. Labour Force Development Board, 1995, p. 1). Further, Training For What? maintains that individuals are continually forced to "upgrade" their skills and training to remain relevant in a rapidly changing workplace, and the province can achieve a competitive advantage based on the "knowledge and skills of workers" (p. 2). The argument put forth by the B.C. Labour Force Development Board is in no way unique, and should be very familiar to those individuals in both education and business. Similar opinions supporting the call for career education in public schools (sometimes called 'school-to-career' programs in the U.S.) pervade most industrialized countries (Spring, 2002).

The OECD (1997) plays a central role in rationalizing career education on an international level. It advances the conviction that higher levels of knowledge and skill are the key to meeting labour market challenges successfully around the globe. It also suggests that increasing the skills and knowledge of workers will resolve a range of other social and economic problems:

> As global competition and the effects of new technology rapidly change the nature of work, millions of individual workers in member countries are discovering that they need skills of a much higher level than in the past - or that the skills they do have are obsolete. (p. 13)

The organization maintains that member countries must invest in human capital to promote economic prosperity, full employment and improve social cohesion. Strengthening social cohesion requires reducing income differences by providing improved employment opportunities

for unemployed and underemployed workers. The OECD suggests that individuals, corporations and nations increasingly recognize that high levels of knowledge and skill are crucial to generate employment growth and national prosperity.

Many domestic career education programs embrace the OECD position on the value of a skills enhancement strategy in schools. The Conference Board of Canada (1995), for example, describes the aim of its influential Employability Skills Profile as providing students with the skills required "to participate and progress in today's dynamic world of work" (n.p.). The British Columbia Labour Force Development Board (1995) emphatically highlights what it considers a widening skills gap between provincial workers and projected employment growth patterns arguing, "There is a substantial gap between British Columbian's current skills and those they will need in the future" (p. 3). The board believes British Columbia will gain an international competitive advantage by increasing the knowledge and skills of workers, and re-shaping student attitudes to comply with those of industry. In the U.S., the Philadelphia Public School System (1998) justifies its School-to-Career program by citing the need for all of its students "to become productive citizens and employees [by enabling them] to achieve economic self-sufficiency" (p. 2).

Career educations programs suggest that redressing assumed skill deficits will enhance student employment fortunes within dynamic labour market conditions. Employability Skills for B.C. (1996) submits that, "Young people leaving education experiences are not well-prepared to meet the current demands of the workplace or those anticipated in the future"(p. 1). A primary objective of the Career and Personal Planning curriculum is "to practise the academic, teamwork, and personal management skills needed to succeed in the workplace" (Ministry of Education, 1995, p. 4). Citing escalating technological change and the need for increased labour market flexibility, the Business Education curriculum maintains that students must be prepared to confront changing labour market conditions by increasing their relevant knowledge and skills (Ministry of Education, 2000). In sum, career education is believed necessary to provide the future workforce with the skills and knowledge required for individual, provincial, national and international labour market competitiveness (Ministry of Education, 1995; Ministry of Education, 2000; British Columbia Labour Force Development Board, 1995). The following *a*

prior assumptions, then, are embedded in this viewpoint:

- current and projected labour market conditions require higher levels of knowledge and skill;
- there is a growing "skills gap" separating the academic abilities of students leaving secondary school, and the actual competencies required for current and projected employment opportunities;
- individual competitiveness is synonymous with or leads to provincial competitiveness, national and international competitiveness;
- the competitiveness which results from a highly skilled labour force will mitigate economic and social problems such as unemployment and social fragmentation.

The generally accepted skills gap between students and labour market conditions reported by these documents, however, provokes a fundamental concern; there is no discernible evidence indicating current or projected forms of employment will generally require increased levels of knowledge and skill.

Skill Deficits and Labour Market Trends in B.C. and Beyond

In fact, there is a paucity of evidence supporting the putative labour market trend demanding increased levels of technical knowledge and skill in workers. Labour market research indicates that the majority of occupational opportunities presently being created in many industrialized nations including Canada do not demand technical knowledge or high skill, but are situated at the opposite end of the employment and salary spectrum. Major job growth areas include low salaried, low skill, service occupations located in such sectors as hospitality, food service and retail (Herzenberg, Alic and Wial, 1998; Keep and Mayhew, 1995; Human Resource Development Canada, 1996; Livingstone, 1996; Lipsig-Mummé, 1997).

In 1996, the B.C. government, in conjunction with Human Resources Development Canada, published Work Futures, a forecast of provincial employment outlooks extended until 2005. The document was drafted by representatives from industry, labour, government and education to present "a comprehensive view of present and future labour market conditions"

(Human Resource Development Canada, 1996, p. 1). According to the report, the food and beverage industry is the single greatest area of projected provincial employment growth with almost 18,000 new jobs predicted by the year 2005. This labour market forecast is consistent with the aforementioned international employment trends indicating that most new jobs will be generated in the low salaried service industry sector. Indeed, the provincial food and beverage industry stands only above the baby sitting/nanny classification in terms of pay scale with jobs in the former area averaging slightly more that $16,000 per annum. Fueling the conviction that low paying service industry jobs will account for most labour market growth, 16,000 new jobs for short order cooks are expected to be created between 1996 and 2005.

The anticipated proliferation of relatively low paying service industry occupations during the next five years further undermines many of the assumptions supporting skills enhancement strategies intended to improve student employment prospects in a high-tech knowledge-based economy. Further, as Work Futures reports, the hospitality industry is already served by numerous trade programs in national and provincial institutes that provide students with the specific technical training required to work in the area. In addition to the proliferation of low paying hospitality jobs, some provincial employment growth is expected in occupations requiring varying levels of tertiary education. These positions include senior management personnel in finance, telecommunications and other business services; computer programmers and analysts, and there is some anticipated growth in the health care and education sectors. However, workers in all of these areas generally require some post-secondary education in the form of a college diploma or university degree, and many of these occupations demand high levels of specialized professional training. Once again, then, the role of public schools in preparing students for work in these professional designations is adequately addressed by traditional secondary academic curricula since this form of schooling prepares students for post-secondary learning.

Similar to Canada, labour market projections in the United Kingdom indicate that small businesses, part-time work including clerical, selling, catering, cleaning, hairdressing and personal services are the only job sectors where significant employment growth is anticipated (Keep and Mayhew, 1995). Contrary to the high-tech knowledge-based economy rationale supporting the current round of American career education reform, Harrison and Weiss (1998)

report data collected by the U.S. Bureau of Labor Statistics reveal low paying service sector jobs accounted for most employment growth between 1983 and 1993. This employment pattern is not expected to change in the foreseeable future. Labour market forecasts based on U.S. Bureau of Labor Statistics data indicate that until 2005 only one in eight higher than average growth occupations will require a college degree, while two thirds will demand no more that a high school diploma. If accurate, this forecast suggests that the academic capacities required for the vast majority of occupations in the U.S. created during this period are already supplied by existing secondary school curricula. In light of these findings, Harrison and Weiss conclude, "It is quite amazing how powerful the myth of a steadily disappearing demand for low-skilled labour in America has been perpetuated" (p. 10).

Current and projected Canadian labour market conditions appear to resemble those in U.S. and Britain with predicted domestic employment growth expected to occur primarily in service industry occupations. Indeed, there is no evidence indicating a widespread knowledge and skill shortage among Canadian workers. Under external pressure in 1997, for example, the Canadian Labour Force Development Board conceded no more than 20 per cent of unemployment could be attributed to skill deficits (Robertson, 1998). During a 1997 Industry Canada sponsored conference attended by more than 50 private and public sector leaders, however, Don Woodley, Chairman of the Information Technology Association of Canada, continued to espouse the familiar claim that, "we must make sure Canadians have the skills and training to thrive in knowledge-intensive industries" (Industry Canada, 1997, n.p.).

Although the ministry funds a number of skills-based schooling initiatives in conjunction with private industry, an Industry Canada panel recently established by the Prime Minister's Advisory Council on Science and Technology (ACST) found no evidence supporting the conviction that a widespread skill shortage exists among Canadian workers. The final report of the committee, chaired by Jacquelyn Thayer Scott, President and Vice-Chancellor of the University College of Cape Breton, indicates the panel, "found no evidence of a current, generalized skill shortage of technical and scientific skills in the Canadian industry sectors we have examined in detail" (Industry Canada, 2000, n.p.). The ACST established the Expert Panel on Skills in September 1998 to provide independent advice on skills in a number of industry

sectors where opportunities for economic growth and job creation are especially high including aerospace, automotive, bio-technologies, environmental technologies, information and telecommunications technologies. Contrary to prevailing assumptions regarding worker skill deficits, following its investigation the council encouraged government officials to develop employment strategies to generate jobs for Canadian workers possessing knowledge and skills they are unable to utilize in present labour market conditions.

Research on labour market conditions in Canada and other industrialized countries fails to corroborate the view that knowledge and skill deficits are causing labour supply shortages, unemployment or other social problems. One study suggests that only a Grade 8 education is required to perform the typical factory or office job found in advanced industrialized societies. Since the 1970s a third of all North American workers possess skills they are unable to use in their present employment circumstances (Livingstone, 1996). A 1996 Canadian report suggested that over half of all Ontario workers surveyed under age thirty-five possess skills that are unable to use because their occupations require exceedingly low levels of academic knowledge and technical skill (Robertson, 1998).

The shift to service sector jobs is, in part, the result of corporate relocation in search of labour markets marked by low wages, unregulated working conditions and limited environmental laws (Robertson, 1998; Crouch, Finegold & Sako, 1999). Streeten (1998) reports that the major cause of upper level job loss among OECD countries is global competition in the form of increased imports from low wage countries and manufacturing jobs being transferred to these same nations. As manufacturing and industrial enterprises close, downsize and/or relocate, many workers find employment in temporary and low salaried service sector occupations (Livingstone, 1996). In British Columbia, the service industry now represents the largest employment sector in the province and continues to experience the greatest measure of job growth expanding from 1,386,900 people in 1996 to 1,534,700 in 2000 (British Columbia Statistics, 2000). Lipsig-Mummé (1997) reports that over the past 30 years, European and North American countries, as well as Australia and New Zealand, have been transformed from industrial-based to increasingly low salaried service sector economies. Although the percentage classified as low salaried is not provided, 72.2 per cent of all jobs in Canada were situated in the service sector by 1997 (Lipsig-

Mummé, 1997). This trend is duplicated in the U.S. where by 1996 three quarters of all occupations were located in the service sector, up from two thirds in 1979 (Herzenberg, Alic and Wial, 1998). The demographic shift in North American labour markets toward low salaried service sector occupations from manufacturing and industrial positions over the last two decades, then, reflects an international trend mirrored in virtually all industrialized countries (Wise, 1989; Dutka, 1994).

Research suggests that corporations in the technology manufacturing fields are responding to global competition *not* by *creating* additional high-tech positions, but by *eliminating them.* Permanent lay offs of highly skilled workers are commonplace. In 1993 alone, the Fortune 500 companies laid off 583,000 high-tech, highly skilled employees (Robertson, 1998). The trend toward high-tech lay offs continues with technology manufacturing giant Nortel recently advising shareholders the company intends to eliminate an additional 5,000 North American jobs to supplement a previously announced 10,000 job cuts (SiliconValley.com, 2001). Major Canadian companies are responding to global competition not by creating full-time permanent high-tech positions, but by replacing existing jobs with part-time and temporary work. Campbell (1994) cites a 1993 survey conducted by Robert Half Canada Inc., that found over 80 per cent of canvassed companies plan to increase their use of temporary staff whether they are experiencing growth or downsizing. A full two thirds of the interviewed companies expect to reduce their total employment numbers in the future. Temporary and part-time staff generally consist of workers possessing comparatively low levels of education, training and skill.

The Causes of a Skills Gap Myth

Why, then, given the lack of empirical data supporting the existence of any actual connection between higher levels of technical knowledge and skill, and labour market conditions have governments continued to support the employability skills enhancement strategy to curriculum reform? We suggest several reasons for the increased emphasis on career education among industrialized countries. Government policy developers, recognizing that many of the jobs eliminated by technological development are industrial, manufacturing, assembly-line and production-type positions, assume *a priori* that mostly high-tech opportunities will remain. To acquire these jobs students must obtain higher levels of knowledge and skill through public

education. With regard to the global economic environment, industrialized nations commit to the view that only a highly skilled workforce protects their competitive labour market advantage over developing countries where cheaper sources of comparatively unskilled labour are readily available. A highly skilled labour force, or so the prevailing reasoning submits, makes a country or region more appealing to businesses seeking to increase productivity and profits. There are also important ideological underpinnings propelling the trend toward career education. We discuss these later in the paper. Empirical evidence and sound economic reasoning expose basic weaknesses with the first two assumptions.

There is no empirical evidence indicating the elimination of low skilled manufacturing jobs leads to the creation of high-tech positions requiring increased levels of knowledge and skill (Crouch et al., 1999). Many of the jobs eliminated by technology are simply not replaced, a labour market finding consistent with the profit orientation of corporations and businesses operating within a market economy framework. Introducing workplace technology is intended to enhance profits by reducing production costs rather than augment the number of high-tech employment opportunities available to workers. Allman (1999) supports this observation by arguing that full employment is neither possible nor desirable in a high-tech economy valuing technology for its capacity to create a competitive business advantage by eliminating jobs to reduce production costs. The belief that technological development leads to fuller employment, then, ignores the primary motivation for implementing workplace technology within market economy culture.

A second error committed by education policy developers is assuming a highly skilled labour market protects national competitiveness, attracts international corporate investment and hence generates job opportunities. The relative importance of highly skilled workers compared to other production advantages such as low wages, an absence of labour legislation and limited environmental regulations is highly questionable (Streeten, 1998). Although skill shortages may cause labour market difficulties for certain high-tech industries wishing to relocate, the primary relocation incentive for transnational companies remains reducing labour and production costs (Robertson, 1998; Crouch et al., 1999). Rather than generating high-tech employment opportunities, technology now allows many occupational tasks once demanding skilled workers

to be performed by comparatively low skilled labour in countries typified by low wages, poor working conditions, few environmental regulations and low levels of democratic rights (Allman, 1999; Crouch et al., 1999).

Although it is difficult to identify specific labour market benefits to individual workers or nations from a general up-skilling of workers, there is an obvious advantage gained by corporations in endorsing the strategy. A highly skilled labour pool creates a supply side advantage to employers by ensuring intense competition between workers for available occupations. Competition between workers for available jobs reduces employee benefits, forces wages lower and encourages students to increase their human capital through additional education and training. Keep and Mayhew (1995) report that the skills enhancement strategy has failed to pay dividends for British workers, but has paid off handsomely for employers in terms of reducing real wages. Indeed, there is growing recognition among European governments that the rapidly improving education level of students is merely being used to screen new recruits for existing jobs rather than generate economic growth or create additional employment opportunities (Crouch et al., 1999).

Career Education and Social Cohesion

There is another assumption related to career education we wish to address in this paper. The OECD actively promotes the view that, "Investment in education and training helps form the human capital - the skills and abilities - that is a vital element in assuring economic growth and individual advancement and reducing inequality. It is an important element in combatting unemployment and improving social cohesion" (Healy, 2001, n.p.). Improving social cohesion requires integrating workers into the labour market in a fashion that enhances income equality and provides them with the socio-economic benefits of full employment. Contrary to the conviction that skills enhancement strategies in public education are alleviating income discrepancies, however, available evidence reveals that income gaps between workers from industrialized countries are widening.

The general economic status of many labour market participants has decreased significantly during the last two decades and society is becoming increasingly polarized with expanding income divisions between rich and poor citizens reported in virtually all industrialized

countries (Hyland, 1997). Over the last several decades, the world's 500 largest multinational corporations have grown sevenfold in sales while the worldwide employment of these same firms has remained virtually flat. Major multinationals' sales grew from 721 billion in 1971 to 5.2 trillion in 1991, claiming a steadily growing share of commerce, but the human labour required for each unit of their output has diminished dramatically over the same period (Greider, 1997). Livingstone (1996) also observes that social polarization is widely evident in North American income trends: "The movement was primarily out of the lower middle [and] into the very bottom and top of the earnings distribution . . . the largest share of the movement was downward" (p. 64). Younger workers have been particular hard hit by changing labour market conditions with real wages among this group declining more than 25 per cent since 1977. Indeed, real wages for most Americans have declined steadily over the past two decades (Herzenberg et al., 1998). The Hudson Institute, a corporate sponsored think tank in the U.S., candidly admits that greater gaps separate the incomes of the well paid from the poorly paid within the new global economy (Judy and D'Amico, 1997). Citing OECD research on career education programs in Britain, Nash (1999) reports, "Two decades of costly job-training programmes have failed to stop unemployment spiralling among young people" (n.p.).

These findings further suggest that career education policies and programs generally adopt a flawed *a priori* rationale to support widespread curriculum reform. The claim that improving the occupationally relevant knowledge and skill level of students enhances social cohesion lacks evidence, contradicts the profit orientation consistent with market economy culture and ignores current trends on growing income gaps between workers. Career education programs emphasizing skill enhancement strategies are not responsible for generating income gaps or unemployment, but they are ill-equipped to resolve these problems in any imminent fashion. Indeed, the problem causing growing income gaps clearly has less to do with alleged skill deficits among workers and more to do with a lack of meaningful employment opportunities. Advancing community-minded objectives such as social cohesion within market economy culture may actually require a major reconsideration of economic, social and educational priorities. To achieve social cohesion, the concept of work must be relocated within a framework of democratic social citizenship that recognizes the right of all individuals to

participate vocationally, and accepts political and economic responsibility for protecting that right.

The Ideological Implications of Career Education

The increased emphasis on occupational relevance in public education is largely attributable to the global economic changes witnessed during the past few decades and the associated rise of neo-liberal ideology. The continual recessions of the 1970s generated international concern with the welfare state policies introduced following World War Two (Young, 1990). Welfare state policies involved significant state intervention in the market by advocating comprehensive social programs to improve wealth distribution and enhance social justice. The neo-liberalism materializing in the wake of welfare state collapse believes market forces afford a superior model to state planning in achieving global economic prosperity. McLaren and Farahmandpur (2000) describe neo-liberalism as "capitalism with the gloves off" or, more precisely, the "corporate domination of society that supports state enforcement of the unregulated market and establishes the market as the patron of educational reform" (p. 1). Within this neo-liberal milieu, the responsibility for economic success and social stability is increasingly placed on the private sector, and education becomes a means of enhancing international market conditions and corporate profits by preparing human capital.

We believe the neo-liberal trend in public education is ideological in two important ways. First, by ensuring the goals of the market become the goals of education students are indoctrinated into a particular world view. Market economy principles and practices such as supply and demand, unfettered competition and routine occupational displacement are naturalized by career education programs as beyond reasonable dispute. Business Education, for example, describes the rapid rate of technological change influencing families, workplaces, communities and the environment, and the need for students to adapt to unstable working conditions, as the "new reality"(n.p.). This ahistorical depiction of society is ideological because it advances culturally dominant, or hegemonic, perspectives while neglecting available criticisms of market economy practices and alterative world views. Second, career education is ideological in that it diverts public attention from the structural causes of class stratification by implying that public schooling and individual worker deficits are responsible for systemic social and economic

problems. It is far simpler, and more ideologically effective, to vilify public education and draw attention to supposed individual skill deficits that it is to address the fundamental injustices embodied in market economy assumptions and practices. Changing structural social and economic conditions involves the far more daunting task of challenging social class organization, and redressing the systemic injustices causing widespread poverty and escalating class stratification (Spring, 2002).

Summary

This paper has addressed two central questions related to the connection between assumed labour market trends in a high-tech knowledge based economy and education programs ostensibly intended to prepare students for future employment opportunities. It is at best a questionable, if not demonstrably false, claim that a general knowledge and skill shortage is causing current labour market supply problems, unemployment or income gaps between workers. Domestic and international labour market forecasts indicate that the percentage of new jobs requiring higher levels of knowledge and skill is expected to remain low into the foreseeable future. It is reasonable to conclude, then, that an career education will do little to enhance regional economic competitiveness or improve social cohesion. Quite to the contrary, growing income gaps between workers in many industrialized nations indicate that career education, at least as presently designed, is not delivering on its social and economic promises.

Based on the preceding analysis, then, we conclude that the trend toward career education in public schooling is predicated on fallacious assumptions about current employment patterns combined with ideological attempts to deflect public attention from the systemic crises facing modern industrialized countries. With the collapse of the Berlin Wall, corporations have become the political *first estate* in Western democracies, and social welfare policies, originally intended to mitigate the effects of *lassiez faire* capitalism, have been dismantled along with the socialist ideologies that justified them. In the absence of counter hegemonic forces, a dominant propaganda strategy has emerged that presents market economy values as the inevitable and preferred framework for global social reconstruction. We conclude that career education seems little more than one key cog in the machinery of neo-liberal ideology.

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