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A gateway to good jobs? Opening up the conversation

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The idea of a gateway has a long lineage in scholarly writing and, especially in British Columbia, in the popular imagination. Academic definitions from transportation geography identify gateways as intermodal nodes in continental transportation networks. They are points where multiple lines in the networks of two or more transportation modes converge, and where goods are transferred between the modes. These goods include raw materials, intermediary inputs and final consumer goods, moving in increasingly complex, uncertain and flexible supply chains. Places such as greater Vancouver and Prince Rupert meet the definition of a gateway because they are nodes where ocean shipping and air transportation networks meet continental rail, pipeline and road networks. Economic activity occurs at such gateway places.

Proponents of gateway infrastructure projects tend to over-estimate the economic benefits of their investments, making inflated claims about the number of jobs created through public spending on the infrastructures that support the handling of traded goods, while ignoring those supply chain segments that produce contingent and unstable jobs. Gateway proponents, such as the current BC provincial and Canadian federal governments, point to some short-term construction-related job-creation. However, their claims about the sustained benefits of trade gateways rest heavily upon assertions about jobs in goods movement, as well as the jobs that result from the movement of goods. The former are comprised of the port, airport, highway, logistics and other transportation services that a region sells to the rest of the world. The latter results when gateways and associated transportation systems allow the net export of products.

Opponents of gateway infrastructure projects offer a mix of social and environmental critique. While a few are concerned about bad employment practices in parts of the supply chain, more voices are heard expressing concern about polluting emissions, and the potential for catastrophic events, associated with all transportation, as well as the harmful consequences of the extraction, processing and use of some commodities. However what typically resonates with the broader public is a more limited concern with unappealing aesthetics, such as the noise, visual intrusion, or perceived disorder of industrial activity. Hence, opposition to gateway industries often leads to their selective displacement onto places and people who cannot say no. Too often this means we get the worst of both outcomes; a gateway with a larger environmental footprint that creates a more bad jobs, and fewer good ones.

Herein lies a dilemma for economic and environmental progressives. Done right, gateways such as the Asia Pacific Gateway will create a small number of good jobs of various skill and work content, while potentially supporting growth in other industry in less polluting ways. Done wrong, gateways create modest numbers of poor jobs in increasingly uneven worksites that exert negative effects on other parts of the labour market, and that distort public policy decisions. When progressives opt out of shaping gateway policy agendas, there is a high potential for a race to the bottom in working conditions, for public infrastructure investments that lock-in sub-optimal transportation systems, and in support for environmentally harmful economic activities.

The goal of this paper is to open up a conversation about what a progressive version of a gateway might entail; what exactly does it mean to have 'good job' in the gateway transportation industries, how would the industry look different if it were creating good jobs, and how and by whom might such a gateway system be created and governed? In keeping with the goals of the conference, the paper seeks policy solutions but tries to stimulate debate rather than present answers. I rely upon my ongoing research about all aspects of the transport-logistics sector in British Columbia, especially about the port-urban relationship in the Lower Mainland. I have avoided using citations to the literature – these are available on request.

To open a conversation around good jobs in the transportation gateway the paper will elaborate four points. First, I discuss the power of the gateway as a policy narrative: to acknowledge that the idea has proven compelling in BC. Second, I present empirical data on the number and nature of the jobs created in the gateway industries (focusing on the port-related trucking, longshoring, warehousing, and freight services industries) in the province over the past 20 years: to recognize where jobs are created. Third, I discuss what I mean by a ‘good job’ and outline a framework for understanding why differentiated jobs are created along the supply chain: to understand the organizing, regulatory and other challenges to securing good jobs in the gateway. And fourth, I discuss the governance of ports in BC (and Canada) and other key elements of the gateway: to inform a wider perspective on what might constitute a progressive gateway.

1. The gateway as a policy narrative

The concept of a ‘gateway’ represents a successful discursive strategy, one that has been used to mobilize significant political support and public infrastructure investment. The contemporary BC-centred version of the gateway can be traced to the highly successful lobbying activities of the Greater Vancouver Gateway Council and its forebears, which developed a transport infrastructure spending program and a related policy agenda during the 1990s. By the mid-2000s the Council had successfully convinced senior governments to embrace this agenda. Relatedly, the Asia-Pacific Foundation has been successful in attaching positive cultural and political connotations to the gateway concept. In a time when globalism is generally understood to be positive, a gateway is also taken to imply something positive. Contrast the idea of a gateway with that of a ‘wall’ which connotes a lack of openness, or a ‘doormat’ which implies being stepped upon. To be for the gateway implies being open to new people, ideas and products; to be against it implies isolationism, insularity, even racism.

The idea of the gateway at the federal level survived the transition from Liberal to Conservative governments in 2006, in no small part due to the actions of then MP David Emerson. And the gateway idea has thrived under the current federal government: “The Asia-Pacific Gateway and Corridor Initiative is an integrated set of investment and policy measures focused on trade with the Asia-Pacific Region. Its mission is to establish Canada’s Asia-Pacific Gateway and Corridor as the best transportation network facilitating global supply chains between North America and Asia. The Initiative is led by the Minister of Transport.”

BC’s own ‘Pacific Gateway’ was initially tied to Surrey-Cloverdale MLA and transport minister Kevin Falcon’s highway-building agenda. His legacy is still apparent in the proposed Massey

Tunnel Replacement and in the increased engagement of the Province with Vancouver’s port. And the gateway concept has now extended into the BC Jobs Plan, which relies heavily on the claim that the transportation systems at the core of trade gateways deliver jobs: “British Columbia is the preferred gateway for Asian trade to North America and the world. Transportation is a key support for economic growth and development. That’s why it is singled out for special focus in the BC Jobs Plan. More than any other sector, it [transportation] serves the dual purpose of generating direct employment and underpinning job creation, development and progress throughout B.C.”

The convergence of the BC and Federal government visions of the gateway has prompted others, such as “The Ontario-Quebec Continental Gateway” and “The Atlantic Gateway”. In Winnipeg, an inland logistics hub called CentrePort Canada claims “the distinction of being at the intersection of key transportation and trade gateways including the Asia-Pacific Gateway, the Mid-Continent Trade and Transportation Corridor, the Arctic Gateway and the Atlantic Gateway”. Given the status that the gateway concept enjoys, it is no surprise that Enbridge chose to call its pipeline the “Northern Gateway”. This is a policy idea that travels well.

Gateways are branding exercises, but they are also consensus-building exercises amongst what are otherwise supply chain competitors. In other words, part of the appeal of gateway as a policy development processes is that it has been effective in securing agreement around infrastructure spending priorities, operations and technology amongst industry associations, public authorities and higher levels of government, as well as individual businesses (from shipping lines and terminal operators, to transloading facilities and railroads). Gateway exercises have proven effective at attracting resources from higher level governments, regardless of which party is in power in Ottawa or Victoria. And, the Asia-Pacific Gateway has also succeeded in harnessing investments from industry; for example, some of the infrastructure improvements around Vancouver-area marine terminals are being paid for by the Gateway Infrastructure Fund which receives industry contributions on the order of \$7-8m per year based on cargo throughput.

The problem with a successful policy narrative such as ‘the gateway’ is that it has the power to distort public spending priorities. In some cases gateway projects in BC have been pushed through over the objections of local communities (for example, the Highway 1 expansions in Burnaby). However, in a democratic system of government, it is more often accurate to say that gateway priorities, which are set by a select group of pro-trade interests, distort rather than determine public spending priorities. Projects that are most likely to be funded also appeal to other interests: roads for commuters who can’t or won’t consider transit, highways for suburban real estate developers, and grade separations that reduce delays and that don’t block anyone’s view, are all more likely to be funded than those which narrowly support only trade interests. So, for example, we get the South Fraser Perimeter Road that (falsely) promises suburban commuter congestion relief and goods movement, rather than more serious efforts to promote container barging along the Fraser River and to deliver transit to suburban communities south of Fraser.

Gateway narratives are compelling when they can point to big successes, and ignore the more complex trade-offs. Gateway proponents emphasise that throughput at BC’s ports (and airports) has grown considerably in the past two decades, especially container handling. This has occurred without displacing bulk exports (see Table 1); indeed we have seen increasing containerization

of raw materials such as packaged lumber traditionally exported as break-bulk cargoes. Other changes highlighted by proponents include the expansion of port facilities at Deltaport, the emergence of Prince Rupert as a container port, port and airport governance reform and amalgamation, and major public investment in transport-related infrastructure. What is ignored, however, is that these processes were not accompanied by much overall growth in transportation employment. Instead, they were accompanied by important, but subtle, qualitative changes in the transportation labour market. These include changes in the organization of longshore and warehousing work, and labour disruptions and new regulations in the port trucking sector. All of these changes have had important implications for employment in the port-logistics sector, not only in waterfront work, but also in the trucking, warehousing and freight services sectors.

Table 1: BC Port Cargo Statistics, 1990-2010 - Overall growth, especially in imports unloaded

	Short tons	1990	2010	1990-2010 Growth
Vancouver	Loaded	62,073,100	86,348,900	39%
	Unloaded	8,411,500	18,394,300	119%
	Total	70,484,600	104,743,200	49%
Prince Rupert	Loaded	12,097,800	13,433,100	11%
	Unloaded	387,200	1,561,100	303%
	Total	12,485,000	14,994,200	20%
All BC Ports	Loaded	96,864,038	114,163,184	18%
	Unloaded	25,175,112	29,257,084	16%
	Total	122,039,150	143,420,268	18%

Source: Authors analysis of Statistics Canada data.

The complexities of the resulting patterns of job creation represent a considerable challenge to progressives. Although the number of jobs created is significant in some places, typically, gateway jobs claims are over-inflated. In key sectors represented by organized labour, the jobs created provide good earnings, working conditions and security; at the same time, working conditions have deteriorated in other parts of the transportation chain. Furthermore, claims about jobs in gateways raise difficult questions for progressive alliances because of the environmental impacts of transport activity as well as some of the goods handled. As well, the governance of gateways is complex; it is not easy to balance the interests of the widely dispersed producers and consumers of the goods that move through a gateway with the interests of those who are affected by the congestion, pollution and other externalities of gateway activity. These realities and narratives around the ‘gateway to jobs’ seem to be especially effective at dividing progressives.

‘Gateway’ is a powerful policy narrative that can secure worker, industry, commuter and government support for public infrastructure spending. The challenge for progressives is that to only oppose the gateway without having an alternative in all likelihood means being by-passed. Hence we need to ask some hard question about what a progressive gateway might look like.

2. The jobs in ‘the gateway’: handling other people’s stuff

Despite the success of the gateway idea in attracting infrastructure resources and increasing throughput in BC ports and airports, and despite the large number of people who work in

transportation in the province, the increase in jobs involved in moving other people’s stuff has been less than proportional. What are the *incremental* jobs created by the business of moving other people’s cargo? The “Transportation and Warehousing” sector for which systematic data is available includes many jobs that are not trade-related. Of the 121,000 people working in the transportation sector in BC in 2013, about half worked in transit and postal services, and some portion of the remaining air, truck, warehouse and water transport workers serve only the residents and firms of the province. On the other hand, the official statistics also place some advanced service functions (e.g. maritime law) that are trade-related in other industrial sectors.

In the absence of clear definitions, port, airport and gateway ‘economic impact studies’ create an inflated image of the additional jobs created by such trade-related transportation investments as container terminals. Between 1990 and 2010, the number of container units (TEUs) handled at Vancouver’s port increased by more than double the rate of growth in TEUs handled by all ports between Alaska and Mexico (Table 2). Hence Vancouver’s share of all the imported and exported containers handled at ports along west coast of North America increased from 4.4% to 9.1%. However, despite all this throughput growth, between 1996 and 2013 (a time period for which consistent data are available), employment growth of 22.6% in Transportation & Warehousing in the Vancouver CMA actually lagged behind the total regional employment growth of 34.8%. In the case of Prince Rupert, the port first handled containers in 2007, and grew rapidly to handle half a million TEU per year by 2012. In the decade from 2001 to 2011, the Skeena-Queen Charlotte Regional District experienced a 22.6% growth in employment in Transportation & Warehousing, despite a 21.1% decline in overall employment.

How can we explain these apparent differences in the employment impacts of increased port activity? In Prince Rupert, container handling was a truly new activity: they exported a transport service to the rest of the world. Vancouver’s experience is explained by the increases in the productivity of the port-logistics system overall, which in aggregate terms is a good thing. More productive jobs imply fewer of them, but with more potential to create better working conditions.

Table 2: Container cargo growth in Vancouver, 1990-2010

		1990	2010	1990-2010 Average annual growth
Total TEU	Vancouver Port	383,244	2,514,309	27.8%
	All North America West Coast Ports	8,659,452	27,537,000	10.9%
Vancouver share of North America West Coast		4.4%	9.1%	

Source: Authors analysis of American Association of Port Authorities data.

It is worth considering what is included in a standard economic impact study in order to sharpen our focus on the additional jobs that are created by increases in trade-related transportation. Port economic impact studies are reasonably good at counting the number of people employed directly as a result of port activity at a given point in time. But they are not useful at predicting changes in employment from changes in cargo throughput. Using 2006 Census data, I counted approximately 25,000 direct permanent port-related jobs located in greater Vancouver. Using employer surveys, Port Metro Vancouver’s 2008 Economic Impact Study counted about 30,000 direct person-years in the maritime cargo sector located in greater Vancouver. Despite the definitional differences, the 5,000 job variance is easily explained; I included about 10,000 more

jobs in trucking and warehousing because I couldn't tell from the Census which of these jobs were directly related to the port, while the port impact study included about 7,500 more rail and shipping jobs, as well as 7,500 manufacturing, milling and fishing jobs that happened to be on port land.

These two studies imply that somewhere between 17,500 (the low end of my estimate once non-port related trucking and warehousing are excluded) and 22,500 (the high end of the PMV consultant's estimate once manufacturing jobs are excluded) jobs in the greater Vancouver area were directly linked to the maritime trade function the port. While more jobs are associated with the Port as an institutional actor and land-holder, only some of these jobs are related to the amount of trade cargo handled. For example, there is no reason to think that the number of jobs at a manufacturing plant which happens to be on port land will automatically change if cargo throughput increases (unless of course it is displaced to make way for container operations or storage). When I analysed 1991 Census data in the same way that I analyzed the 2006 data, I found that there were as many as 3,500 more jobs in port-logistics in 1991 in metro Vancouver than in 2006, despite the massive cargo growth. This need not be seen as a bad thing.

Too often, when they release their economic impact studies, gateway proponents imply that the large number of jobs associated gateway activity will continue to increase if the cargo throughput continues to increase. The press statement accompanying its 2012 Economic Impact Study, Port Metro Vancouver (PMV) is thus refreshing because it backs away from such claims: “Port Metro Vancouver has released its 2012 Economic Impact Study, showing a significant increase in the total value of cargo handled annually through the Port. Other findings demonstrate considerable growth in the average port-related wage as well as in the number of full-time positions since the last study, released in 2008.” Their consultants' report notes a decline in direct maritime cargo person years (whether located in metro Vancouver or elsewhere, and including manufacturing employment) from 36,800 in 2008 to 33,100 in 2012. They “believe this accurately reflects the decline in Port volumes”. It should however be noted that while automobile shipments and breakbulk cargo were down, both bulk cargo and container throughputs had recovered to above pre-recession levels by 2012.

The port's most recent report is thus more a claim about job quality than quantity, noting “increased productivity at PMV, port-wide.” However, the impact study goes on to note that there was an increase in container movements to and from the port, which added employment in the trucking sector. Yet more jobs in the port trucking sector in the late 2000s actually resulted in greater employment instability, as well as in demands for more road-building, more localized diesel particulate pollution along the region's truck routes, and more greenhouse gas emissions than might have resulted from a different organization of the industry. Port-logistics industries, when they are creating good jobs – as defined below – will likely create proportionately fewer jobs than the increase in cargo.

Table 3 examines incremental transportation employment at the provincial scale. We should expect that employment in transit, postal services, and local trucking and warehousing will grow roughly in proportion to total employment growth, other things being equal. The difference between total employment growth and transport sector growth thus provides one indication of how many jobs are being created (or lost) due to changes in the sale of transport services to those

located outside the province. Table 3 shows that between 1990 and 2010 across all of Canada, transport sector employment growth lagged (24.8%) behind overall employment growth (30.2%). However, in BC, and despite the growth in cargo shown in Tables 1 and 2, transport sector employment growth lagged (29.1%) even further behind overall employment growth (44.7%) than it did in Canada. The result is that employment in transport in BC declined 10.2% relative to the province and the nation. This is not just a reflection of the 2008 recession: the picture is even worse (14.4% relative decline) when we look at the period 1990-2013.

The conclusion is clear; massive expansion in port activity in BC has not translated into expansion in trade-related transportation employment, although it is important to recognize that growth has occurred in some places. Instead, what we have seen are important changes in the organization of port and logistics work. And there have been important changes in the composition and location of employment, especially within the Vancouver metropolitan region. In demographic terms, although Vancouver-area port-logistics workers are still less likely to have degrees or be women, immigrants and visible minorities, they are rapidly becoming more like the workforce overall. And these changes have been especially rapid in specific occupational segments; the port trucking sector, and parts of warehousing, are low-earnings immigrant niche industries. The gateway’s impact is thus quantitatively modest, but qualitatively profound. To further understand this, we need to look at individual occupations in the supply chain.

Table 3: Transportation & Warehousing employment growth lags behind all industries

	All industries, thousands employed			Transportation & Warehousing, thousands employed			Growth of Transportation & Warehousing relative to All Industries in Province and relative to Canada*
	1990	2010	Growth	1990	2010	Growth	
Canada	13,086.4	17,041.0	30.2%	645.4	805.7	24.8%	0.0%
Newfoundland	206.9	219.4	6.0%	10.6	11.8	11.3%	10.7%
PEI	55.1	70.6	28.1%	2.3	2.1	-8.7%	-31.4%
Nova Scotia	385.3	452.5	17.4%	19.9	18.5	-7.0%	-19.1%
New Brunswick	300.3	356.1	18.6%	16.2	18.9	16.7%	3.5%
Quebec	3,140.3	3,915.1	24.7%	151.8	165.6	9.1%	-10.2%
Ontario	5,194.1	6,610.0	27.3%	233.0	304.3	30.6%	8.7%
Manitoba	513.8	619.8	20.6%	33.5	35.2	5.1%	-10.2%
Saskatchewan	454.2	524.3	15.4%	19.1	25.7	34.6%	24.5%
Alberta	1,276.8	2,016.6	57.9%	67.1	104.9	56.3%	3.8%
British Columbia	1,559.6	2,256.5	44.7%	91.9	118.6	29.1%	-10.2%

Source: Authors analysis of Labour Force Survey, Table 282-0008.

* Difference between employment growth in Transportation & Warehousing and in All Industries in Province, minus the same difference for Canada. In BC, growth in employment in Transportation & Warehousing lagged behind All Industries growth by (-15.6%) more than in Canada (-5.4%).

The main trade-related transport occupations include:

- (a) Port and water transport: longshore / stevedoring work, which is the job of moving cargo between land- and ocean-based transportation modes, as well as port and terminal

management, the operation of ships, tugs and other vessels, and the provision of services to support these activities. More port cargo growth is typically associated with capital-intensification which may increase or decrease the number of jobs modestly, but will always entail a lot of upskilling to deal with the new machinery, equipment and systems. Because of this capital-intensity, the need for specific job skills, and the long history of organizing success by water transport unions, these are good jobs although new entrants typically face contingent employment for up to a decade.

- (b) **Trucking:** some trucking can be directly tied to gateway activities, especially port truckers hired to move containers between marine terminals, warehouses, and railyards. Truck trips related to gateway activity may actually increase more than proportionately to container throughput because a single container may now be moved several times between the marine terminal, transloading facilities, storage depots and railyards. The problem is that the barriers to entry between the port trucking and other segments of the trucking industry are low; hence this is fragmented industry with a complex mix of union and non-union employee drivers, and independent owner-operators. The sector is notorious for excessive competition leading to low-wages, long hours, and under-capitalized firms. Port truckers in Vancouver went on strike in 1999, 2005 and 2014.

- (c) **Warehousing:** as with trucking, while much warehousing activity is tied to local (non-trade) storage, distribution and retailing, those directly tied to international trade include transloading warehouses, container freight stations, and other facilities directly linked to the port (and airport). Some warehouses, typically those linked to major importers and exporters with particular requirements for efficiency, and enjoying relatively stable throughput volumes, do create relatively good livelihoods for employees. But they face constant undercutting competition from warehouses that do not. Average wages in the sector fell in the period 1991 to 2006.

- (d) **Freight Services:** a broad and rapidly changing subsector that includes customs brokers, freight forwarders, shipping agents, packing and crating. Increasingly this activity also includes advanced logistics and other business services. This sector creates a mix of service sector jobs.

Note that a more expanded definition of the gateway would also include air transport and rail. Despite considerable growth in cargo handling by Vancouver ports, between 1991 and 2006 employment of dock- and rail-workers declined, while employment in the warehousing and freight services sectors expanded. Overall, port-logistics remained a sector of relatively high earnings, although earnings in the warehouse sector did decline.

Quantitative evidence is less clear for the trucking sector, given definitional challenges, but the census data indicate that employment in the port trucking sector grew less, and earnings, although low on average, stayed higher in Vancouver than might have been expected given nation-wide trends up to 2006. Interview evidence indicates that this is related to the regulation of port trucking industry, which was somewhat successful following the settlement of the 2005 port trucker strike. However, this regulation had clearly failed by the end of the decade, and employment in port trucking expanded again as was noted in the 2012 PMV Port Impact Study.

In practice, this also meant that there were more trucks and truckers chasing the cargo. And so in 2014 the port was again subject to a trucker strike. It remains to be seen whether a new attempt at port trucking regulation will stabilise this industry segment. It is difficult to see how this can be achieved without a regular employment model for port truckers.

The findings discussed above are summarised in Table 4. What this table highlights is that the relationship between port growth and regional employment should be approached in a more disaggregated way which takes account of the differences in job quality along the supply chain. And to do this, we need to have a clearer understanding of what constitutes a good job.

Table 4: Employment growth and relative wages in port-logistics sectors in Canada and Vancouver, 1991-2006

	Employment growth:		Wages relative to all other sectors:	
	Canada	Vancouver	Canada	Vancouver
Rail	Declined	Declined	Above average	Above average
Water/Port	Declined	Declined	Above average	Rose well above average
Truck	Grew	Flat	Below average	Below average
Warehouse	Grew	Grew	Below average	Fell to below average
Freight Services	Grew	Grew	At average	Rose to above average

Source: summary of authors’ analysis of census microdata.

3. Good jobs, and the challenges of supply chain integration and disintegration

The task of defining what a good job means in the gateway is partly the same task as it is in any other sector of employment: a good job provides living wage or better pay rates, appropriate benefits, a career ladder and opportunities for advancement through experience and training, health and safety, and meets other basic employment standards. The challenges are different in the various segments of the gateway: for example, health and safety is a particular concern when it comes to the physical movement of goods. The freight services sector is quite diverse, and it may be easier to create career ladders for upward mobility in this sector than in trucking, where driving skills typically afford horizontal rather than vertical mobility.

However, all of the gateway occupations share common challenges which come from being tied to the task of handling other people’s goods. Supply chains are organized to be flexible because the requirements to move goods are seasonally and cyclically variable. Disruptions to ‘normal’ operations are not exceptional, they are expected. And the technologies of goods movement are increasingly standardized and hence interchangeable; in theory a container destined for Toronto can be just as easily off-loaded in Vancouver as in Los Angeles. The actors in supply chains – not all of them – but key ones in ocean shipping, terminal operating and cargo ownership are large and powerful organizations. The flexibility which comes from the design of supply chains, and the standardization of technologies, gives the more powerful the ability to squeeze those less powerful. This includes workers in particular segments of the logistics chain.

Indeed, a ‘network’ is a better metaphor than a ‘chain’ for describing how this happens. The logistics sector is an interconnected and intricate system of actors, activities, and relationships that moves goods between remote locations. A network, like a chain, is only as strong as its

weakest link. The biggest, most modern port terminal in the world will not be efficient if there are not warehouses to handle the goods, if road and rail connections within the region and to the wider hinterland are inadequate, or if the accompanying paperwork and information is not correctly processed. People make these processes of movement possible; they are the ones who operate the machinery that lifts and carries the goods, and they exchange the information that makes any physical movement intelligible.

However, unlike a chain, a weak link in a network can be easily bypassed. If a route becomes congested, unreliable or too expensive, a quicker, cheaper or more reliable route will be found. Alternatively, some of the uncertainties of supply chain activity can be externalized onto contingent workers. Hence, despite the outward appearance of seamless movement, it should not surprise us that labour market conditions differ greatly within logistics networks; compare, for example, the earnings of longshoremen and port truckers. Shippers and carriers structure their activities to seek out, establish, and maintain labour market conditions that are most favourable to them. This means that high wages and employment protections exist alongside low wages and contingent working conditions in the same activity network. Furthermore, unequal employment conditions may affect some social groups more intensely; for example, the newest labour market entrants, immigrants and young workers, are concentrated in those logistics chain segments with low barriers to entry.

The flexibility of logistics also makes successful environmental and public health intervention to prevent pollution and other effects of some gateway industries more difficult. There are voices that would limit all trade-related transportation in BC, often because it is a way to challenge the use of particular commodities such as fossil fuels, but also because of concerns about safety record of shipping those commodities. Such oppositional coalitions may be able to stop the most egregious trade-related projects from proceeding in particular places. While that is not always a bad thing, often the perverse outcome is the displacement of the unwelcome activity to a place where it is subject to less scrutiny, or where the displacement actually increases the net negative impact. Over the past 30 years, improvements to the livability of the City of Vancouver have arguably come at the expense of other parts of the region; by rezoning industrial land and resisting the use of rail corridors for freight, the City has displaced of truck traffic and agricultural land conversion onto other parts of the metropolitan region.

Flexibility in supply chains is thus both a cause and a reflection of bad jobs in the gateway; it is a cause because flexibility provides some employers with the power to threaten to leave/bypass, and it is a reflection because the demand for employment flexibility itself takes a toll on contingent workers. So when it comes to defining good jobs in the gateway sector, we also need to pay additional attention to factors such as:

- How regular are the work schedules of those working in the industry?
- Is employment organized along social and geographic lines of segmentation?
- Is the activity tied to the place where workers live through innovation, infrastructure or some other advantage that makes it less likely supply chains will be diverted elsewhere?
- Given the reliance on public investments to tie logistics actors to places, is the industry governed and regulated in an accountable, transparent fashion?

Given network flexibility, we cannot expect good jobs to be created in the gateway, unless those jobs are created in a broader context of appropriate employment regulation. Again, this is true in all industries, but seems especially the case in an industry sector so subject to uncertainty in demand and where powerful actors have such a capacity to bypass good, more expensive, jobs.

4. Governing the gateway

This brings me to the final point, namely governance of the gateway. Here I will also focus on the Vancouver Port, but the principles described here apply to other Port Authorities, and in some respects to the commercial airports and to agencies such as Translink. Increasingly, these government agencies responsible for delivering and managing the infrastructure of the gateway have become dominated by appointees selected from slates nominated by industry insiders. This surely influences the decisions taken, and leaves ordinary citizens feeling excluded from decision-making processes. A further complication is that while gateway industries exert most of their negative externalities in BC, they serve the entire nation. The constitution of Canada gives the federal government the majority say in many of these agencies and their activities, in addition to its ‘power of the purse’ which can be applied in more or less environmentally and socially responsible ways. We should not expect there to be quick or simple solutions to the complexities of governing these agencies individually, let alone the gateway as a whole.

For almost 100 years, Vancouver area marine terminals fell under the jurisdiction of three port authorities. A 2008 merger brought together the large Vancouver Port Authority (responsible for the Burrard Inlet and Deltaport/Roberts Bank), the mid-sized Fraser River Port Authority, and small North Fraser Port Authority into a single entity which goes by the name ‘Port Metro Vancouver.’ Amalgamation of the port authorities reflects, and has reinforced, the expansion of the port’s footprint in the metropolitan region. PMV is a non-shareholder corporation owned by the Federal government, with a mandate to promote Canadian trade. As a government-owned corporate entity, PMV enjoys considerable regulatory independence and authority. It operates as a ‘landlord port,’ leasing its holdings of federal waterfront and submerged lands to tenants, and providing supportive hard and soft infrastructure. PMV has substantial borrowing powers, and retains a considerable surplus. In 2013, PMV generated consolidated net income of \$94 million from \$211 million in total consolidated revenue. It is also largely insulated against revenue claims by other governments. It pays the Federal government an annual stipend based on gross revenue instead of income taxes, and Payments in Lieu of Taxes (PILT) to municipalities instead of property taxes. In 2013, the stipend and PILT accounted for less than \$11 million.

In my view, three types of governance reform are needed, even though they are unlikely to occur in the current political climate. First, the mandates of the gateway agencies need to explicitly reference a broader range of goals, including the creation of good jobs. In the case of Port Authorities, it is particularly important to shift from a mandate to support maritime trade writ large, to a mandate to deliver net benefits from maritime trade along the entire supply chain at the local, provincial and federal levels. This is important because the current mandate – defined in an opening section of the Canada Marine Act - encourages the Port to presume that more maritime trade is necessarily good for all Canadians. This paper has shown that more trade is not necessarily beneficial when it comes to transport employment; and it is well established that while the benefits of port activity are widely shared, the negative effects (congestion, pollution,

etc.) are concentrated in port communities. A revised mandate could force the Port to confront internally some of the trade-offs associated with maritime trade, and require it to demonstrate a local net benefit. This may prompt the Port to provide a greater share of retained earnings towards meeting local needs, but a more fruitful approach might be to prompt the Port to incentivize and enforce the closure of ‘low road’ employment and environmental practices in port and supply chain operations.

Second, the representation on the governing bodies of the gateway transportation agencies needs to be balanced and broadened. This is not a call for full and direct democratic accountability in the governance of every gateway agency, though this is appropriate in the case of Translink. There is a widespread recognition in the literature on infrastructure governance that there are efficiency and distributional trade-offs between accountability and autonomy. When it comes to Ports, I do not question the principle of autonomy embedded in the current governance arrangements. The current governance model has been successful at providing a framework for long-term investment and securing agreement amongst competing supply chain actors. The problem is that it is agreement among a narrow, unbalanced set of interests. The preponderance of power in the PMV governance structure is held by industry; seven of 11 seats on the Board are appointed by the federal government from lists of nominees created by port users. The region’s municipalities, provincial government, other western provinces and federal government each have one seat on the Board. The proposed balancing and broadening could be achieved, for example, by equalizing the numbers of government and user (industry) representatives by shifting board places from users to local and regional governments, and by requiring that organized labour be directly represented among the user-nominated appointees.

And third, to balance this autonomy and to support the broadened mandate, the environmental, employment and other regulatory frameworks within which the gateway operates need to be strengthened. This is because the actions of gateway industries and agencies can easily spill over into other labour market segments and as well as into other policy areas. We have seen the Port Authorities become increasingly active in a range of policy arenas: more openness to public scrutiny is required here, especially as regards the Port’s role in lobbying governments. More generally, given the flexibility of logistics networks, there is a concern that working conditions in trade-related transport jobs may set a pattern for related, local-serving jobs. Similarly, decisions to invest in particular infrastructures, such as roads versus rail and barging for containers, affect local livability and commuting patterns. When the gateway is creating small numbers of good jobs and moving goods in less environmentally harmful ways, the spillover effects will be positive. When they are not, the gateway can stimulate a race to the bottom.

Ultimately, gateways can be a source of a small number of good jobs, and support the provincial and Canadian economy in less environmentally harmful ways; but only if they are embedded in a broader progressive and supportive policy context.