Service Class Prosperity in Ontario

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Executive Summary

‘Service Class Prosperity in Ontario’ is a research report which draws on Statistics Canada data and broad academic literature to present a conceptual and empirical profile of the Ontario’s service class. We define the ‘service class’ as an occupational grouping of typically low-pay service jobs. This term was developed by Richard Florida as part of his framework for understanding creativity-led economic growth; however, it is a concept developed in counterpoint to the creative class, and has been neglected in recent research and policy debates.

Florida connects the productive advantage of human capital to the shifting lifestyles and values of a mobile ‘creative class’, and emphasizes the qualities of place which attract and support new economic development (i.e. talent, tolerance and technology). This focus has generated interest in fostering creative economies, as well as productive criticism which highlights income inequality and social exclusion as features associated with highly creative places. Yet within this debate there remains a massive silence surrounding the service class. In order to address this gap, this report draws on service work research from beyond this debate.

Representing over 40% of the labour force, and a fast growing segment of employment, Ontario’s service class is characterized as a feminized (over 60% female), significantly part-time (29%), low-human capital (10% university attainment) workforce, which otherwise has similar composition of immigrants and visible minority groups to the larger Ontario labour force. The average earnings for service class workers is $37,700, which is less than 60% of the average creative class income.

Jobs included in the service class are diverse, and the class itself is heterogeneous. In addition to women, lone parents are over-represented in service work, while particular groups at risk of poverty earn much less than the average service class income – recent immigrants (65% of average) and aboriginals (67% of average) in particular.

Themes of gender, precarity or risk, and under-valuation of service work emerge from this research – both the literature and data – as relevant to Ontario’s service class and economy. We demonstrate that value placed on service class work needs to be reconsidered because it is essential – not ancillary – to Ontario’s functioning economy.

As part of an ongoing dialogue towards achieving greater prosperity for all Ontarians, this report offers a detailed preliminary summary, and aims to identify opportunities and challenges for service work in Ontario to create additional value and for service workers to appropriate greater value from the work they do. General recommendations include: promote entrepreneurship, maintain and extend pay equity measures, support ‘at risk’ groups, and promote workplace rights.
Introduction

A first step towards achieving service class prosperity in Ontario is establishing a better understanding of the service class itself – both in terms of major themes in service work, and a current profile of service workers. Developing an empirical basis of Ontario’s service class is necessary because there is currently very little knowledge about the characteristics of this workforce. In other words, the service class has been neglected; this report provides a welcome intervention on the topic and benchmark to ground further research on the concerns, priorities, and best practices for raising service class work.

Using Florida’s framework of classes as mutually exhaustive categories of occupations, the starting point of our understanding of “what is the service class?” is simply those service sector jobs which are typically low-wage and low-autonomy (Florida 2002a), and the occupational codes corresponding to the data which underscore Florida’s analysis of contemporary economic growth (see Appendix A). While occupation-based analyses are increasingly popular in regional economic research, adopting Florida’s particular approach to develop a picture of service class work in this report has the added benefit of developing work which is consistent and complementary with the broader Martin Prosperity Institute project: Ontario in the Creative Age.

Overall, it is fair to characterize Ontario’s service class as a feminized, significantly part-time and low-human capital workforce, which otherwise has a similar composition of immigrants and visible minority groups to the larger Ontario labour force. Accounting for over 40% of the Canadian workforce in 2001, the service class in Ontario has a low average wage ($37,700), as compared to the other occupational classes and the Ontario average.

Why is it important to consider the service class?

First and foremost, it is important to understand the profile of the service class because it is a large and growing share of Ontario’s workforce. Service class occupations currently constitute the largest group of workers in Canada, and to neglect this segment of the labour force is a grave oversight and potential vulnerability in economic planning.

Data show that the rise in creative class workers over time has been accompanied by a corresponding rise in service class workers, as shown in Figure 1. This correlation seems to persist at urban as well as larger scales of analysis, and is taking place at a time when Canada is becoming an increasingly urban country. Given this observed correlation, pursuing an economic development strategy predicated on attracting talent and fostering the creative class will likely result in associated growth in service class occupations.
Secondly, it is important to study the service class because services provide the infrastructure and supports necessary for a well-functioning economy – for both goods-producing and knowledge-intensive industries. Finally, a third reason for this research agenda’s importance is the observed increase in both service class and creative class, their co-location in urban areas, and the fact that many of the most creative places are also those with the greatest income inequality. As such, pragmatic plans for growth and a balanced agenda for prosperity should account for and include service class work as a core concern.

**What is the service class?**

Like the ‘creative class’, the ‘service class’ has both a conceptual and empirical definition which was first developed and popularized by the work of Richard Florida (2002a, 2004). The 'service class' according to Florida is "primarily paid to execute according to plan, while the 'creative class' are primarily paid to create and have considerably more autonomy and flexibility than the other two classes [i.e. working and service] do" (Florida 2002a,9).
Service class thus represents an occupational grouping characterized by "low-end, typically low-wage and low-autonomy occupations in the 'service sector' of the economy: food service workers, janitors and groundskeepers, personal care attendants, secretaries and clerical work, and security guards and other service occupations" (Florida 2002:71). The occupations included in the service class according to the NOC-S (National Occupation Classification – Statistics) classifications are included in Appendix A. From this list of occupation types, it is apparent that there are diverse occupations – ranging from secretaries and cashiers to social service workers and occupations in protective services – which together comprise the service class. Many of the occupations, however, include front-line workers and care-giving, which may involve particular risks (e.g. client aggression), or demand particular performative (e.g. flight attendant) or emotional (e.g. social worker) labour.

In addition to occupations, this project identifies some of the industries which significantly employ service workers, and explore the employment and income dynamics within them as part of the empirical profile of Ontario’s service class.
Methods and Data

This project is exploratory in nature, with the aim to better understand the service class in Ontario, its conditions and concerns, and identify the factors which influence its prosperity. This aim is both important and ambitious, and this project brings together initial findings from relevant literatures and data as a first step towards achieving this goal. In scope, the project was limited to looking at Ontario, rather than comparative or more detailed analysis, and is grounded on Statistics Canada data from a variety of sources discussed below.

The analysis in this paper is based on the most recent available data from Statistics Canada at the time of this study, including: Canadian Census micro data for the years 1991, 1996 and 2001; aggregate data from the 2001 Canadian Census; and micro data from Labour Force Survey 1987 to 2007. There are some caveats in the Census micro data. Firstly, we are only able to retrieve 25 occupation groupings from the Census micro data. To divide the workforce according to Florida’s empirical definition, at least 2-digit National Occupational Classification-Statistics (NOC-S) is required (see Appendix A). To resolve this problem we have devised a proxy table that uses the occupational groupings based on Census micro data and distributes them according to Florida’s four classes, (see Appendix B). While this is not a perfect solution, it provides comparable data for the Census micro files we have used.

We use the Census micro data to identify high risk groups as defined by the Institute for Competitiveness and Prosperity in their Working Paper 10, *Prosperity, inequality, and poverty*. The paper identifies 6 risk groups: high school dropouts, recent immigrants – those who have immigrated in last ten years, lone parents, disabled, individuals aged between 45 and 64 who are living alone (“unattached”) and aboriginals (ICP 2007:28-47). We are unable to include disabled in our analysis as this was based on a supplementary survey by Statistics Canada, Participation and Activity Limitation Survey, 2001 and we have not looked at this survey in our analysis.

We also use the aggregate table from Statistics Canada, Census 2001 to look at cross tabulations between occupations and industries. To look at trends over time we use micro data from Labour Force Survey. We collect this data for the month of April for every year to avoid any seasonal affects. The urban and rural comparison draws on data from Statistics Canada’s 2005 Survey of Labour and Income Dynamics (SLID).

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1 Statistics Canada 2006 Census aggregate and micro data was unavailable at the time of this study.
Literature Review

In this project, a wide range of literatures have been consulted. Firstly, a summary of the creative class thesis and its major contributions to regional economic development are presented. Secondly, some of the major and significant criticisms of the creative class model are described. This framing of the contributions and debates surrounding Florida’s thesis are important for this project, which seeks to raise the value of service class work.

The next set of literatures are drawn from a broad scan across academic disciplines, in order to identify other intellectual trajectories of the ‘service class’ and to consider studies of service work which are not particularly associated with creative class oriented debates, yet are important to this study for anticipating challenges and opportunities regarding Ontario’s service class.

Rise of the Creative Class – a new growth regime

The provocative and influential bestseller, *The Rise of the Creative Class* (Florida 2002a), has ushered in a new era for urban and regional economic development. Not only has the work re-popularized the significance of place in economic development, but it has also challenged the conventional wisdom that people follow jobs to suggest that in the new economy; jobs in fact may follow people.

Richard Florida’s basic argument is that individual creativity is driving the new economy, which is fundamentally different from the ‘old’ economy. The new economy, unlike the previously manufacturing-based system, is knowledge-intensive and characterized by diffuse economic power. In the current context, skilled labour is a key input (i.e. factor of production), that has increased potential control over the means of production (e.g. through intellectual property), realigned loyalties with place over company, redefined personal (uncertain) career tracts, and identities shaped by lifestyle consumption (Donald and Morrow 2003:4).

Florida’s observation that “creativity, knowledge, and ideas are the key factors of production” (Florida 2005:161) is “not particularly novel” (Glaeser 2005:594). Links between human capital and growth have been documented (e.g. Glaeser) while emphasis on knowledge-intensive clusters (e.g. Porter) and learning regions (e.g. Lundval) also support the consensus that a new, knowledge-based economy is upon us. However, Florida connects the productive advantage of human capital to the shifting lifestyle and values in particular places through the quantifiable proxies of Talent, Tolerance and Technology. This focus has generated interest in understanding and developing urban creative economies (e.g. Gertler 2004).

Florida argues that “regional innovation and economic growth are associated with regional openness to creativity and diversity” (Florida 2002b:743). While
creativity and diversity are generally seen as positive urban features, especially among planners who have been influenced by the thinking and writing of Jane Jacobs (1961), their particular significance as predictors of economic growth was newly developed by Florida (2002a, 2002b), and explained as a reflection of the new reality where talent, in the form of the creative class, does not make location decisions solely based on “employment opportunities and financial incentives” but also on the “amenities, entertainment, and lifestyle considerations” of a place (2002b:743).

Not only does the creative class increase productivity, but they are also discriminating about where they would like to work and sufficiently mobile to make it so. As a result, places compete for talent. Talent concentrates in cities which cater to their personal lifestyles, and at the same time firms exhibit the tendency to locate in spatial agglomerations in order to tap into shared labour pools (Florida 2002b:744). Combined with the mediating role which institutions such as universities play in attracting talent and creating an atmosphere of tolerance, this reinforces the propensity for some places to be more receptive to diversity and thus better endowed with talent (Gertler and Vinodrai 2005). In other words, Florida’s talent model consists of both inputs (i.e. the creative class and new economy firms) and conditions (i.e. amenities, thick labour pools, culture and values) which are geographically grounded in competitive city-regions (Donald and Morrow 2003: ii). Jurisdictional advantage (Martin and Feldman 2005) can thus be thought of, no longer as a stock of natural resources or proximity to rail or waterways, but as a co-location of inputs and conditions – the 3Ts: technology, tolerance and talent (Florida 2002a).

It is worth noting that the transition to a new economy is occurring in the wake of the fall of Fordism, where vertically integrated (mass) production systems were dismantled in favour of horizontal and flexible production networks characterized by a “high degree of functional decentralization and open-endedness” but “durable regional clusters of capital and labour” (Scott 2000:24). Through economic globalization, distinction between the industrial core and periphery is manifest in the ‘new international division of labour’ and a new geography of regional specialization (Scott 2000). The demise of a Fordist mode of production has also contributed to new interest (of researchers and policy-makers) in the “rise of a creative economy” and the general importance of cities to the creative process (Rantisi et al. 2006:1798).

While Florida recognizes the context of heightened inter-urban global competition, his tone celebrates the “cycles of creativity” as a natural and historical feature of cities (Florida 2005:160). Other urban scholars have regarded the climate with skepticism. Bob Jessop, for instance, suggests that the accentuated competitive climate is symptomatic of broader regime shifts (e.g. globalization and neoliberalism), where concerns over full-employment are replaced by an emphasis on innovation, and the social is subordinated to
the economic in policy-making at a time when governance is being rescaled and reoriented (Jessop 2002:459).

For example, a creative city development script (Gibson and Kong 2005), wherein cities must compete for mobile talent by making themselves attractive to the tastes and activities of the creative class, is a situation in which cities adopt market logics and become entrepreneurial and competitive entities which abandon their previously managerial mode of urban governance (Harvey 1989). Jamie Peck in particular describes the creative class policies as a new iteration of a familiar development script which is growth oriented, aggressively competes for mobile economic resources, reacts to external threats, and boosts local prospects (Peck forthcoming).

Cities and regions, like other consumer goods, offer “varied bundles of economic opportunities and lifestyle offerings” which are more or less attractive to the creative class; appearing as “an innovative, exciting, creative and safe place to live or to visit, to play and consume in” is increasingly in a city’s interest (Harvey 1989:9). However, there is danger in treating the city as a consumer good – the danger of catering to tourists and elites, or clients rather than citizens. There are in fact many critiques of the creative class concept, presented in the next section of this literature review, and at least two major issues with the above discussion. The first and key criticism is that there is no substantial discussion of the place of the service class in this new economy. Second, the strategy of competing for talent is posited as a zero-sum game which risks catering to tourists and elites, while neglecting other citizens.

**Critiques of the Creative Class – creative yet unequal**

Creativity as a solution to urban social and economic problems is incredibly seductive, and has been fervently adopted by many municipalities seeking to implement the vision Richard Florida popularized in *The Rise of the Creative Class* (2002a). Cities want to be ‘cool’ and prosperous; in a context of economic decline (for many) and heightened insecurity and competition (for all), cities embrace the possibility of attracting and cultivating a creative class. Ontario’s cities are no exception.

In their respective criticisms of Florida’s work, McCann and Markusen raise concerns over the insufficient treatment of inequality (social and spatial) on the one hand, and the context of policy implementation on the other. McCann suggests that Florida’s discussion of creative cities and the new class focus too narrowly on particular livability assets and lifestyles, and offers only cursory engagement with questions of inequality (McCann 2007). Markusen, on the other hand, takes issue with Florida’s characterization of the creative class as either inherently ‘creative’ or truly a ‘class.’ Arguing that the creative class is a ‘fuzzy concept,’ Markusen suggests that “talent, skill and creativity are not synonymous with higher education” as Florida’s empirical research suggests.
She also explains that there is no discernable shared politics of the creative class, and argues that artists organize predominantly for the purposes of sharing ideas and work, rather than political action – the political role of the creative class is, by extension, unlikely to engage urban political issues of inequality.

The ‘new urban imperative’ of creativity is viciously criticized by Peck (2005, forthcoming). Peck has three chief criticisms of Florida’s talent-based economic development strategies: first, they do not demonstrate the causal relationship between talent and growth; second, they do not offer compelling examples of “policy-led creative growth”; and third, they are perniciously applied in the current context (Peck forthcoming: 16). Not only do urban policies which serve the creative class thesis download risk and responsibility to the lowest possible scales, which is counter to tenants of equality, they pamper the creative class, disproportionately supporting private lifestyles and spaces which are designed specifically for the interest of an elite minority (Peck 2005, Peck forthcoming). However, some of these criticisms are also applicable to the underlying context in which creative city policies are operationalized rather than the policies themselves. Such critiques of the broader neoliberal urban context which does not enshrine social equality, but rather promotes individual competition as virtuous, thereby depoliticizing insecurity, inequality and vulnerability is also voiced by scholars such as Brown (2003) and Jessop (2002).

Donald and Morrow (2003) offer a compelling synthesis of the many criticism charged of Florida’s work; in particular, they make the distinction between critiques associated with the application of his research (i.e. direct, uncritical translation of the talent-model as urban development strategy), and critiques of his research (i.e. data, methods, etc.). They warn against simply marketing the cultural vibrancy of cities and urban areas, or replicating the image of other places, suggesting instead that communities should “build on the unique and creative strengths of its built, natural and human elements” (Donald and Morrow 2003:8), and be particularly careful of the tendency to privilege consumption of creativity (e.g. art performance, ethnic foods, bohemian districts) where consumption activities are “a form of economic and class distinction” (Donald and Morrow 2003:12).

This, however, is advocated in an urban landscape which is politically fragmented and increasingly polarized, both between cities and within their areas. While responding to direct features of the talent model cum urban development guide, Donald and Morrow also remark that there is a more radical critique of Florida’s work as “part of a larger body of new economy research that runs contrary to much recent scholarship that has found a contradiction between urban entrepreneurialism on the one hand and social justice on the other” (Donald and Morrow 2003:11).

Other significant themes in their report are income inequality and social exclusion. Social exclusion is a “consequence of fundamental structural changes in the global economy” and felt differently across space according to places’
particular social and political histories (Donald and Morrow 2003:16). As a result, income inequality is a troubling feature of some of the most creative places which are held up as good models for other cities to emulate, and it seems likely that inequality is exacerbated by urban growth policies which aim to attract a creative class. Also, a creative class script “subtly re-legitimizes regressive social distributions within the city” and naturalizes the inequality and position of comfort and power which the creative class enjoy as something earned rather than constructed (Peck 2005:2).

Donegan and Lowe examine the trend of income inequality associated with creative city strategies, claiming that “the new economic hope for cities... has a dark side” since Florida’s work posits inequality as “an unfortunate, yet seemingly unavoidable ‘externality’ of creative class growth” predicated upon “consumption habits and an increased demand for personal services” (2008:47). In contrast to Florida’s call for greater creative class leadership and harnessing the inherent creative potential of all people, Donegan and Lowe argue that traditional institutions and “solutions such as union representation, a rise in the minimum wage, or extension of living wage campaigns” remain relevant tools for more equitable economic development too quickly dismissed by Florida and his proponents (2008:47).

Yet Florida is not naïve to income inequality as a feature of the creative age. Together with his colleague, Kevin Stolarick, Florida developed an index of inequality that compares wages in the service, manufacturing and creative sectors, and finds that “inequality is highest in the creative epicenters of the U.S. economy” (2002: xv). Florida goes on to denounce this inequality as insidious; not only does the creative class do more interesting (and rewarding) work, but it is dependent on the service class as the “support infrastructure of the creative age,” whose own work is woefully uncreative (2002: xv, xvi). Such an index of wage inequality demonstrates a clear and troubling disconnect between regional and individual prosperity (Donald and Morrow 2003:14), although there is interest within the Martin Prosperity Institute to increase the creative content of typically routinized service work.

Roughly a decade earlier, Sassen (1991) developed the concept of social polarization having identified the trend of increasing polarization in the occupational and income structure of global cities. Characterized by a mixture of high-skill, high-pay jobs on the one hand, and low-skill, low-pay jobs on the other, the service sector in global cities was highly unequal in the wake of deindustrialization. In such global cities as New York and London, Sassen argues that a new class alignment becomes apparent, where the low-income strata of workers is necessary to service high-income white collar workers both at work and at home. Importantly, she also draws links between the growing presence of low-pay service work – which is conceptually equivalent to Florida’s ‘service class’ – and the growth of immigrant labour attracted to global cities.
Service Class in Sociology – post-industrial society

Prior to Richard Florida’s introduction of the terms ‘service class’ and ‘creative class’ as concepts related his framework for place-based economic growth, the term ‘service class’ was already established in sociology and associated with post-industrial society (e.g. Bell) and social classification (e.g. Goldthorpe). This section of the literature explores some major similarities and differences between the concept of a ‘service class’ in how it is used by Bell and Florida. By presenting a brief overview of post-industrial society, the author hopes that future ‘service class’ discussion and research will be mindful of how its meaning varies across academic disciplines.

A final reason for exploring the service class of post-industrial society is because Bell, the author of The Coming of Post-Industrial Society (1973), is acknowledged by Florida as “a remarkably prescient thinker who has influenced my own thinking in powerful ways” (Florida 2002: 196). In fact, the work Florida and Bell share many similarities in how they analyze the character of a society and periods of economic transformation, foremost of which is that they are both optimistic.

Sociologist Daniel Bell’s work on post-industrial society was among the first articulations of the anticipated structural changes to society and economy associated with the transition away from industrial production in light of a new technology, knowledge and information based economy. His venture in social forecasting was effectively to predict the North American transformation from an industrial to post-industrial society. The transition involves significant structural change to social and economic activity, reflected in progressing beyond concerns over standard of living (i.e. quantity of goods) to preoccupation with quality of life (i.e. services and amenities). The two major changes in the employment structure of post-industrial society are the shift to services as a dominant sector of employment, and the public sector as a major and growing area of employment (Bell 1973:129). In other words, distinguishing features of a post-industrial society include the rise of white-collar work, and the role of government and public sectors (e.g. health care and education) as large scale employers. Additionally, he contends that an ever expanding array of services will continue the historic trend where the tertiary sector grows in conjunction with, and in support of industrial production.

As industrial manufacturing employs smaller shares of the domestic labour market – whether because it is produced more efficiently or offshore, capitalizing on a new international division of labour and regime of flexible production that Bell had not anticipated – post-industrial society becomes

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2 John Goldthorpe, is a sociologist who has been influential in establishing a basis or typology for social classification, including a ‘service class’. Without expanding on his work in depth, we emphasize the prominence of ‘service class’ as a term and concept within sociology.
characterized by larger shares of employment in three categories of service along stages of this transformation. The first stage is the “expansion of transportation and public utilities as auxiliary services” in the movement of goods (i.e. the product of industrial manufacturing). The second stage includes services related to distribution associated with mass consumption, population growth and expanding markets. The third anticipated stage relates to rising incomes and new demands for personal services – such as restaurants, hotels, travel, entertainment and sports – as “people’s horizons expand and new wants and tastes develop” (Bell 1973:128).

The latter stages of this transition, and particularly the emphasis on expanding demands for new personal services, in many ways reinforces Florida’s suggestion that place-based, people-oriented policies will attract productive workers, where such talent is readily mobile. Another consistency between the work of Florida (2002a) and Bell (1973) is their emphasis on how technology effects innovation and economic change. However one crucial difference of how they conceive the changing employment profile of the economy, is their distinctions between ‘service class’ as a social class of white-collar, technocratic professionals (i.e. Bell), and ‘service class’ as a category of low-wage, low-autonomy service occupations (i.e. Florida). Specifically identifying a group of low-wage service occupations, as Florida has done in his work in economic geography, has recently received renewed attention in sociology literature through studies of social mobility that investigate whether a new type of unskilled service class is emerging as a ‘new service proletariat’ (e.g. Bernardi and Garrido 2008).

Critics of Bell’s optimistic view of post-industrial society contend that he “overlooks the bottom of the occupational structure” and rally behind Baumol’s (1967) model of unbalanced growth which anticipates the “unpleasant trade-off between the expansion of unskilled low-wage occupations or a high-level of unemployment” (Bernardi and Garrido 2008:300). A third alternative for changing occupational structures relates to jobs supported by country specific welfare states; however, much of that capacity has been trimmed back through neoliberal state restructuring (e.g. Harvey 2005), and the recent economic downturn.

In their interesting study, Bernardi and Garrido “rescue the research agenda on an emergent service proletariat in advanced societies” by investigating patterns of change in employment structure and the demographic composition of the unskilled service occupations in Spain (2008:300). Their work, like other research on post-industrial theory, examines issues of social stratification. In their case study on Spain, Bernardi and Garrido find that, with the exception of a sub-group of young men with higher education employed in the private sector, most of the unskilled service workers – a heterogeneous category – did not experience upward mobility in the occupational structure (2008:310).
*Studies of Service Work – ethnographic and feminist approaches*

There is a wealth of academic research on the experience and work context of service occupations that exist completely separate from current debates and discussions regarding economic development through Florida’s conceptual framework of occupational classes. These include studies of particular occupations, forms of labour, and sites of work, drawn from a variety of geographical jurisdictions and academic fields or disciplines. Such research is very helpful for understanding and anticipating some of the major concerns of specific service work which Ontario may be or become faced with. Below we identify four major themes, which represent a selection of the interesting and relevant research available. To be discussed in turn below, they are: how gender, class and racial identities manifest in service work experience and performances; contributions from feminist theory; ethnography as a significant approach to labour research; and care-giving and re-productive labour as service work.

The first major theme highlighted from a broad scan of academic literatures, is the role which gender, class and racial identities play in shaping the experiences and performances in service work. For example, racial dynamics in service provision influence perceived occupational status and status of the workplace in a study of cashiers (Agius and Lee 2006), while another study finds that women use beauty work to stress social differences, rather than specifically produce ‘beauty’ (Gimlin 1996). Research on the globalization of domestic service finds that racialization or ‘othering’ of foreign domestics serves to reproduce global inequality through social and political marginalization in the host society (Cheng 2004). Some significant research focuses on gender, and how service work places demands on female employees for the production of emotional labour (Taylor and Tyler 2000). Another vein of research examines how gender interacts with other categories (e.g. ethnicity, class) to shape identities at the workplace (Adib and Guerrier. 2003).

Contributions from feminist theory and perspectives were prevalent in the research on service work. In addition to recognizing gender inequalities embedded in the economy, feminist theory challenges racial silences in studies of emotion work (Mirchandani 2003) and interrogates the implications of the resurgence of domestic workers for gender and immigration studies (Lutz 2002). In terms of studies of organizing service work, recasting workplace issues as matters for wider community engagement (Wills 2008), is sympathetic to a feminist understanding of the shared and creative struggle of being precarious (Precarias 2004). Some research more generally asserts that established feminist literature and theory remains useful for understanding experiences and critiques of gender-based service work (e.g. Conley 2005, Hooyman and Gonyea 1999).
Ethnographic research, within and beyond the field of anthropology, was frequently a relevant and revealing method for researching service work. Ethnographies reveal different constraints and concerns regarding service work. For example, one study examines the time obligations and resource coordination of low-income mothers (Roy et al. 2004), while another place-based ethnography explores how a growing household service economy introduces social heterogeneity into a suburban community, generating new anxieties and notions of social difference (Maher 2003). Alternatively, a transnational ethnographic approach presents women’s labour migration (from the global south) as part of provisional diaspora (Barber 2000).

Finally, a fourth major theme identified in the literature is the role of service work as care-giving and re-productive labour. Re-productive labour expands on the concept of domestic labour – which explores the significance of unpaid work done by women in the home – and highlights the distinction between work that directly creates value, and “work aimed at recreating the worker or the capacity to work” (Marshall 1998). This is a rich and varied arena of research, which ranges from the study of women’s transnational experiences and perceptions of paid and unpaid domestic work (Messias 2001), to explorations of meanings, and the masking of meaning (i.e. exploitation) in paid child care work (Uttal and Tuominen 1999). Research on historical transformations of paid re-productive work (e.g. cooking, child-care, domestic service, etc.) also finds that as the context for such work has shifted from dominance of private household servants to more institutional forms, racial-ethnic hierarchies have remained more entrenched than gender inequality (Duffy 2007). The significance of service work as care-giving and re-productive is also significant in framing such activity as peripheral to productive economic activity (Seifert and Messing 2006).

**Risks and Innovation in Service Work – case study insights**

Risk is a major theme that comes out of the literature regarding the workplace or labour experience of service occupations. Again, this research is completely separate from Florida’s framework of occupational classes, yet provides significant insight into understanding different influences, constraints and opportunities acting upon the work lives of service class workers. The range of occupations which compose the ‘service class’ is broad, and as a result, so too are the literatures which touch on the risks and innovation of such work. For example, risk in the workplace includes challenges to the respect and dignity of service workers (e.g. Warren 2005), as well as risks of exclusion from, or exploitation in service work which disabled people face upon entering the labour market (e.g. Wilton and Schuer 2006).

As noted in the previous section, many service class workers work in situations where their gender, class and racial identities are enmeshed in the service
interactions that constitute their labour. Front line service workers thus may be particularly vulnerable to discrimination or more subtle forms of (personal or systemic) symbolic violence. Additionally, because many service class occupations relate to caring (e.g. care giving for children, elderly or ill) or involve performing particular emotions or attitudes (e.g. in retail, beauty work, or restaurants and bars), service workers may deal with strain, anxiety or stress depending on the context of an individual’s work (e.g. Forseth 2005, Pettinger 2005, Erikson 2004, and Uttal and Tuominen 1999). In some fields, such as social work, there may be instances where emotional exhaustion and job satisfaction coexist (Stalker et al. 2007). Clearly, emotional labour and caregiving are relevant for understanding and improving the labour conditions and productivity of service work.

A common concern in the literature is risk of work related physical injury. While a significant body of research addresses concerns of eroding workplace rights for janitors in Canada and other jurisdictions (e.g. Aguiar 2006, Herod and Aguiar 2006, Ryan and Herod 2006), there are also several studies on cleaners and work related injury. In fact, the structural changes to the sector – such as flexible employment relationships and outsourcing – have resulted in work intensification and shifting investment and concern away from long-term health or job satisfaction of workers (Seifert and Messing 2006: 557). Despite being in the bottom quartile of wage earners and among the fastest growing sectors of employment, cleaning work “is actually one of the most injury-prone occupations in the contemporary [United States] labor market” (Herod and Aguiar 2006:426). A European study suggests that cleaning places “considerable strain on the labouring body … a consequence of [which] many cleaners are forced either to opt for early retirement or are, essentially, invalided out of the profession” (Sogaard et al. 2006:580).

In their ergonomic study of hotel cleaning work, Seifert and Messing argue that such studies are rare in service occupations that are “seen as peripheral to the “real” goals of production or client services” (2006:559). Similarly, Sogaard et al. (2006) recognize that the perceived low social status of cleaning occupations results in minimal incentive to invest in innovative equipment despite benefits of new technology in the cleaning industry (e.g. microfiber, triangular handles). The same pressures operate against innovative forms of work organization, such as job enlargement which Sogaard et al. advocate as a way to “reduce the risk of short- and long-term bodily damage [by having] employees engaged in professional cleaning ... perform work tasks with a different strain profile on the body” (2006:597).

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3 Symbolic violence is the effect of small, unconscious, daily acts which legitimize and reproduce inequality. Symbolic violence is a concept first developed by Sociologist Pierre Bourdieu to describe the dynamics of power relations in social and daily life, where mundane, tacit and almost unconscious modes of social and cultural domination that occur through our daily habits.
Despite some emerging workplace health research and ergonomic studies, cleaning occupations suffer from the compounding of physical risks (e.g., musculoskeletal strain from monotonous repetitive work) with a greater tendency towards precarity through the casualization of labour. This is not unlike other service class occupations. The casualization of labour is a systemic shift in the nature of labour relations towards to increasingly casual forms of work, such as contract projects, seasonal and part-time employment and shift work. An interesting case study of the spatial organization of labour in the fast food industry finds that the prevalence of precarious or contingent work arrangements corresponded to poor knowledge of rights and compensation entitlements among workers, yet did not result in a higher incidence of injury precisely because of the Fordist production system (i.e. stringent controls and spatial division of labour) which routinize and eliminate autonomy in fast food service work (Mayhew and Quinlan 2002). The contrast of the fast food and cleaners’ case studies highlight the complexity of workplace risks and caution against viewing improvements to service class work as a linear progression, from routinized and risky to autonomous and risk-free.

Rather, the tendency to precarity relates to “the interconnections between the social and the economic” since precarious workers’ risks and struggles do not only occur at the site of a ‘work place’ but also bleed into the “territory we navigate everyday” (Precarias 2004:159). This observation is acute in feminized sectors (e.g. language work, domestic work, food service) and is a shared experience that cuts across levels of income and education – as such, it is not only relevant to service occupations, but is meaningful for understanding many new kinds of work. Importantly, the breadth of research and range of disciplines touched on here – notably a selection and in no way a comprehensive review of all service work research – suggest that continued dialogue regarding the risks people in service class occupations face in their work lives must engage diverse perspectives and be open to input from marginalized voices.

**Rise of the Service Class – a majority in our labour force**

This review has scanned a wide range of literatures pertaining to conditions, sites and labour experiences of people in service occupations. However, what the breadth of research does not yet show is the fact that service occupations now account for the lion’s share of jobs in Ontario. The Canadian trend in Figure 1 indicates that service class occupations have risen as a share of total employment in tandem with creative class occupations, while agricultural and working class jobs have waned. The first section of the literature review summarizes how Florida’s framework of creative-class economic growth constructs the service class as the supporting infrastructure of the real source of productivity – creativity oriented work. However, research that examines
service work independent of Florida’s occupational class framework challenges the (under)valuation of service work, or re-productive labour.

Three mutually reinforcing aspects of undervaluation are at work here: social stigma, concepts of ‘productive work’, and remuneration. The first relates to the general lack of respect accorded to service work and associated challenges to the dignity of workers, whose work may be gendered or racialized. The second pertains to the framework of understanding economic systems which positions service work as supportive or tangential to productive economic activity. Finally, the most obvious under-valuation is the relatively low wages accorded to service work. All of these conceptions about service work reinforce its undervaluation.

It is essential that the current re-tooling of Ontario’s economy engage this move to value the service work that is fundamental to a modern economy, yet has been construed as peripheral to it. Below, we draw on the academic literature to identify two major challenges which may hinder opportunities for service work in Ontario to create additional value and for service workers to appropriate greater value from the work they do. The first is the current privileging of productive work, while the second is a potential limitation to generating value through service differentiation.

The problem with “productivity”

Stemming from Daniel Bell’s work on post-industrial society (1973), the rise in service work is a response to emerging demand for personal services as society becomes generally more affluent and concerned with quality of life. Richard Florida (2002) has a slightly different emphasis on the emergence of service work, arguing that place-based economic development centres on the amenities and services which cater to, attract and retain the talent (i.e. creative class) which drives economic growth. In both of these conceptions, services – and low-wage service occupations in particular – provide support to economic growth by catering to new, discretionary demand. In contrast, recurrent in the literature on service work are arguments making the case that services and reproductive labour are fundamental, not peripheral, to the contemporary economy. For example, Herod and Aguiar make a compelling argument that “despite such low pay and harsh conditions... cleaners are situated at an important nexus of the global economy, for they are essential to ensuring that the spaces of production, consumption, and social reproduction which define the social architecture of the contemporary global economy remain sanitary and functional” (2006:427).

This claim can be extended to help understand a generalized situation of service class work: it is under-valued in part because it is seen as enabling some other ‘real’ economic activity, and because it is stigmatized as low status work – the
work of the unskilled, women or immigrants. Also, some macroeconomists and labour economists have noted that permanent distinctions among workers (e.g. education, skill, race, gender) have led to a dual labour market: a market that includes a primary labour market (characterized by good jobs, high wages, and low turnover) and a secondary labour market (characterized by poor jobs, low wages and high turnover) (Blanchard and Melino 1999:286).

Another way of looking at the under-valuation of service class work is through the lens of wages. In neoclassical economic theory, wages are generally taken as indicators of productivity. However, there are caveats regarding wages and service work, and low-pay service work in particular. Firstly, in service work it is difficult to establish wages through assessments of productivity because it is more challenging to measure productivity in service producing industries than in goods producing industries, since services do not produce standard, quantifiable outputs (e.g. widgets or cars), and measurements of total factor productivity are less common and clear.

Secondly, as institutional economists recognize, wages can be the historical product of negotiations between different parties, and thus wage determination is not consistent across all sectors or segments of the labour force. For instance, “in Canada, collective bargaining plays only a limited role, especially outside manufacturing and the government sector” while bilateral bargaining (i.e. employer-employee) of wages and contracts is generally associated with highly-skilled workers (Blanchard and Melino 1999:288). Particularly relevant to the service class – which is defined as low-wage and low-skill occupations – is the fact that “wages offered for entry-level jobs (e.g. McDonald’s) are on a take-it-or-leave-it basis” (Blanchard and Melino 1999:288).

In other words, wages for service class occupations are more likely influenced by labour market conditions than individual worker productivity; there may also be a risk for erosion of (the already low, non-negotiated) service class occupation wages in a recessionary climate. Alternatively, the perspective that efficiency wages (i.e. higher wages than an employee’s reservation wage, paid by the firm in order to retain and encourage productivity among workers) reward skill and encourage productivity as well as commitment to the firm, do not apply as readily to “firms in sectors where activity is more routine” and labour unskilled and replaceable (Blanchard and Melino 1999:289), as is commonly the case for service class occupations.

From an economic perspective, the wages for service work would be accurately valued in the absence of market failures. What would remain unresolved even under the assumption of efficient markets is how the gains from trade would apportioned between employers and employees. While this area requires further exploration in order to develop a rigorous argument, the dispersed market structure of the service class, in contrast to the consolidated and largely unionized working class, is a point of departure for concerns around power asymmetry. Specifically, are disproportionately powerful employers able to capture virtually all the gains from trade and restrict service workers to
reservation wages? If so, then the resulting outcome – though economically efficient in theory – may in fact lead to the destruction of economic value as a result of service class discontent – for instance, through lower productivity, higher turnover rates, and potentially more lawsuits.

**Differentiation among the service class**

Differentiation among services is one possible way to inject creativity into the service class occupations while increasing the value of that work. For example, aesthetic labour ranges from routinized, to expressive, to high-service (Kang 2003). By extension, other forms of service work could cater to particular needs or create more valuable experiences, thus generating and capturing additional value. In many ways, this differentiation already exists. For example, Godwyn (2006) suggests that the concept of emotional labour (see: Hochschild 1983) can be used to explore the importance of the retail service worker as expert and artisan. Along a similar vein, Pine suggests that services are “intangible activities customized to the individual request of known clients” and as such a service economy with heightened differentiation offers *experiences* – an economic offering distinct from services (1999:8,2). However, it is unclear whether increasing the value of service work leads to an experience economy rather than a simple service economy.

If the result is a bifurcation of the service economy into routinized services and customized experiences, it is unclear what this will mean for the people in service class occupations. Would differentiation among the service class risk the further marginalization of routinized service work in the economy and reinforce dual labour markets? New theorizations of how to improve service work through differentiation should revisit established concerns found in the existing literature on service work.
Ontario Service Class Profile

As previously discussed, the service class is both conceptually and empirically defined. In this section of the report, we draw on Statistics Canada data, primarily from Census micro data and the Labour Force Survey, in order to develop an empirical profile of Ontario’s service class workers. Unlike the literature, findings in this section are drawn solely on Ontario data, and present a picture of the aggregate ‘service class’ context, rather than the details and experiences of workers in particular occupations.

The Service Class in Ontario’s Workforce

In Canada, there is a general trend of the rise of the creative class, as well as an associated rise in the service class in terms of workforce composition. As illustrated in Figure 1, the service class rose roughly in tandem with the creative class, and since the mid-1960s represents the largest segment of the workforce. In 2001, 41% of the (full-time) Canadian workforce is comprised of those working in service class occupations. Historically, there is a reversal in the economic structure of the Canadian economy away from traditional working class and farming occupations towards both creative and service based work, as shown in Figure 1.

Figure 2
Average Employment Income by Class, Ontario 2001

Despite accounting for the largest share of workers in Canada’s economy, service class workers earn the second lowest employment income on average as a class. In Ontario, the 2001 average employment income among full-year full-time service class workers was $37,700. On average, service class workers earned less than 60% of their creative class counterparts, and roughly 90% of their working class counterparts’ employment income.

The average income earnings indicated in Figure 2, however, may overestimate the actual earnings of typical service class workers, since the $37,700 figure is based only on full-year full-time workers. A significant portion of service class workers are actually employed as part-time employees. Nearly 3 out of 10 service class workers are employed part-time. Not only is this frequency significantly higher than the creative, working or farming classes, but it also accounts for a large number of workers given that the service class accounts for the largest share of Ontario’s labour force, as shown in Figure 3. The significant portion of part-time workers among the service class is important to keep in mind when looking at the income data, often based on full-year, full-time employment.

Figure 3
Prominent Part-time Employment among the Service Class

As shown in Figure 3, the share of employment by class that worked part-time was significantly higher among the service class; 29% of the service class
worked part-time, which is more than double the share of creative class at 13%, and nearly five times the share of the working class at 6%.4

**Demographic Characteristics of Ontario’s Service Class**

Identifying basic demographic characteristics of Ontario’s service workers is a natural starting point for developing the profile of Ontario’s service class. Drawing on recent Census data,5 we observe little change in the share of total employment in terms of immigrant status, visible minority, gender, and level of education.

Additionally, the 2001 Census data suggest that Ontario’s three major occupational classes (working, service and creative) are similarly diverse; all three classes have between 25 and 35% immigrants, and visible minorities comprise roughly 20% of all three classes. This information reflects the service class as a whole, and thus may understate the extent to which particular occupations within the service class grouping may reflect a demographic composition – especially in terms of ethnicity, gender, and immigrant status – that is very different from Ontario’s workforce population as a whole.

There are, however, major differences across classes as well. As previously stated, women are over-represented in the service class and constitute more than 60% of the share of service-employment, as illustrated in Figure 4. Additionally, the share of Ontario’s labour force that is part-time is notably greater among the service class occupations, as shown in both Figure 4 and Figure 5. These two characteristics taken together distinguish the service class from the other occupational classes as overwhelmingly female and significantly part-time.

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5 Statistics Canada Census periods included in this analysis are – 1991, 1996, and 2001 – because at the time of this analysis, 2006 data was unavailable.
The frequency of attaining higher education (i.e. a bachelor degree or above) is not surprisingly highest among the creative class (approximately 30%), and less common among those employed in the service (10%) and working (5%) classes. When looking at language skills, we find that very little of the Ontario workforce has no knowledge of either French or English – Canada’s official languages. Educational attainment and knowledge of official languages are shown in Figures 6 and 7, respectively.
Figure 8
Age Distribution of Occupational Classes, Ontario 2001

Figure 8 shows the age distribution of full-time employment by occupational class in Ontario, 2001, in which there is an observable trend that service workers are more evenly distributed across ages than the creative class in particular. In other words, service class workers are more likely to be young (15-24 years old) and old (over 65 years), and slightly less likely than the other classes to be between the ages of 25 and 64 years. This may reflect life-cycle factors, such as young people holding service jobs in order to gain experience, or to earn income while pursuing other training, and move out of this class as they age.

Another interesting trend is apparent when looking at the percentage of each class which holds multiple jobs: the service (6%) and creative class (7%) have a similar proportion of their respective classes’ workers who hold multiple jobs. This is important because it demonstrates that, though the trend fluctuates over time and has grown only slightly since 1987, holding multiple jobs is a reality among the two fastest growing occupational classes. There are fewer permanent employees (i.e. includes full-time and part-time, but not contract, seasonal, etc.) in the service class than the other classes (87% in 2007). The service class also experienced the largest drop in permanent employment (a fall of roughly
5%). Only 22% of the service class had union membership as opposed to 31% and 33% of the creative and working classes, respectively.\(^6\)

**Urban and Rural Employment**

There is little variation between service occupations as a share of total employment between urban (44%) and rural (42%) Ontario. This is in contrast to the creative class occupations, which seem to concentrate in urban areas; creative class occupations accounted for approximately 25% of total rural employment, and 35% of total urban employment in Ontario.\(^7\) This concentration is even more pronounced when large cities (i.e. Toronto) are considered, as shown below.

When looking at whether there are wage returns within service class occupations for working in urban areas, it seems there is the most pronounced difference between highly urban areas (i.e. Toronto CSD) and rural areas (i.e. non-Census Metropolitan Areas, Census Areas). This data suggest that both the creative class and service class co-locate in urban areas and large cities in particular, where their incremental wage returns are higher than in less dense and especially rural areas. This information supports the argument that particular skills labour pools develop in urban areas. However, it might also be worth exploring the extent to which the roughly 10% incremental wage difference observed between Toronto and other Canadian cities, as shown in Figure 9, is due to the higher costs of living in Toronto.

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\(^6\) Statistics Canada, April 2007 Labour Force Survey, micro data

\(^7\) Statistics Canada, 2001 Census
Figure 9
Incremental wage returns to service occupations in urban areas, Ontario 2001

Please note that this study does not explore the extent that certain locations – regions, town and cities – are dependent on the service class for a majority of their employment. Nor did this project explore issues associated with seasonality, which may affect particular areas (e.g. ski hills) or occupation categories (e.g. occupations in travel and accommodation) more than others.

Unemployment and Ontario’s Service Class

In Ontario, unemployment in the service class has historically been higher than that in the creative class and lower than that in the working class. The unemployment rate among Ontario’s service class in 2007 was 4%, as opposed to below 2% among the creative class. Using Labour Force Survey micro data, we looked at the trend for unemployment rates between the three major occupational classes – creative, service, and working – over time in Ontario.

8 Unemployment data was taken from the April Labour Force Survey each year to minimize seasonal affects which were otherwise unadjusted. Given that 2008 was an election year in Canada, the data may not reflect underlying trends due to substantial employment associated with the election activity. 2007 figures may be more meaningful for this analysis.
Since 1987, when the time-series data begin, we observe that the unemployment rates between classes are within a 6% range, which is similar to the 2008 data, as shown in Figure 10. However, there is significant fluctuation in the unemployment rates by class over time; this is especially pronounced in periods of recession. In 1991, for instance, the economic downturn resulted in a spike in unemployment across all classes. Between 1990 and 1991, the three occupational classes each experienced a doubling in their unemployment rates: creative class unemployment rose from 2 to 4 percent, the service class rate rose from 4 to nearly 8 percent, and the working class rose from 8 to nearly 16 percent, as shown in Figure 10.

This finding is significant, although not fully explained. Initially, it appears that the creative class is the most ‘recession-proof’ of any occupational category. However, we do not have a complete explanation of this observed trend. For instance, it is possible that creative class work is simply more robust than other types of employment.

Alternatively, it is possible that firms or industries that employ working class occupations are more adaptable at scaling back production through employment cuts while other firms or industries which employ service or creative class workers are more dependent on their human capital, because labour demand is different across industries, sectors, or in this case,
occupations. Interpretations in this vein could suggest, in the case of service class work, that the cost of labour (i.e. an input) is sufficiently low that wages are not a significant component of the firm or industry’s cost structure.

The interpretations from this section are intended to provide some context and offer possible interpretations and implications of the data – they are not a perfect explanation of what is really going on. Three alternative possible explanations are considered below, each with different policy implications.

In the first scenario, it could be that the different occupational categories – given that they have different demographic compositions (age, gender, employment-status, income) – have different reasons for participating in the labour force. In other words, knowledge of the specific occupation classes’ demographic composition coupled with the observed unemployment rates raises the question of whether service class workers are more likely than others to hold what is considered auxiliary employment. For example, a young or female worker who has part-time employment to supplement a household income may not feel the pressure or urgency for either employment insurance or another job as an older, male worker whose income serves as the mainstay for a household’s income. In addition to being laid off, part-time workers on the whole may experience a reduction in hours or number of shifts through which they might feel the recessionary pressures that would not be captured in the unemployment data.

A hypothesis here is that workers who are more likely to be young, part-time, and/or women may be more easily discouraged from the job search and so stop actively seeking work, thereby removing themselves from the labour force and the unemployment data. In this case, it would be interesting to see if the size of the labour force by class changes over time. To assess whether the differing unemployment rates observed in Figure 10 are dampened by discouraged workers, since it is typical that high unemployment is associated with workers leaving the labour force (Blanchard and Melino, 1999:29), we have looked at the Ontario participation rate data over the same period, shown in Figure 11.
Unlike the unemployment rate, which measures the ratio of those unemployed and actively seeking work to the labour force, the participation rate measures the ratio of the labour force to the total population of working age. In other words, changes in the participation rate indicate whether the labour force itself is changing through nonparticipation. One would expect high unemployment to be associated with lower participation rates (Blanchard and Melino, 1999:29).

While there is not a lot of variation in participation rates between classes – the three participation rates started within an 8% range in 1987 and have narrowed to within a 6% range – the creative class has maintained the highest participation rate, followed by the working and then service class. It is interesting to note that the creative class participation rate has very little fluctuation over time, while the other classes appear to be both more volatile and increasing slightly. Particularly relevant to this discussion is the observed (slight) decrease in the class-specific participation rates for the working and service classes in both recessionary periods (i.e. 1991 and 2001). This suggests that the service and working classes are more likely than the creative class to be discouraged workers in tough times, and experience – like their unemployed counterparts – the personal, financial and psychological hardships associated with not having employment.
Based on historical Canadian data, particular groups – such as young workers (15-24 years) and females – tend to experience higher monthly separation rates (i.e. quits and layoffs) compared to others (i.e. workers over 25 years and males) (Blanchard and Melino, 1999:285). This is relevant because the service class is composed of more young, female and part-time workers than the other classes, which may influence the class-specific unemployment rates. This would be particularly worrisome if the structural changes in the economy associated with Florida’s creative class framework are observed to coincide with not just inequality, but the entrenchment of inequality in a dual labour market. A dual labour market consists of a split in the economy between good jobs (i.e. well paid and stable), and bad jobs (i.e. poorly paid and precarious). While this echoes Florida’s distinction between what defines service from creative class occupations, rigid dual labour markets are perceived as pernicious, both in the work of Florida (2002a) and others (e.g. Sassen 1991).

In a second scenario, it is possible that the observed differences in unemployment rates (see Figure 11) reflect the nature of the work environment and differing levels of organization and awareness of government support programs available to workers who loose their jobs. For example, EI (employment insurance) can only be collected by those workers who are unemployed and actively seeking work: it may be that largely unionized sectors or class occupations are aware of these programs, while the other sectors or class occupations may not have this institutional knowledge.

In a third scenario, it could be that some occupations or industries are relatively insulated from market forces (e.g. public sector employees), and thus would appear resistant to pressures of a recession. To test this, we have excluded three industry groups from the calculations which are predominantly public sector and thus likely to buffer against market forces.9

The resulting time-series trend, shown in Figure 12, illustrates the working class unemployment rates are largely unchanged, while the service and creative class unemployment rates increase by roughly 1 and 2 percent, respectively, in both the 1991 and 2001 recessionary periods. This suggests that these three industries, which employ roughly 40% of the creative class and only 22% of the service class, do in fact dampen the impact of a recession on the creative class. In fact, the service and creative class unemployment rates seem tightly correlated throughout time.

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9 The three NAICS (North American Industry Classification Systems) industry groups excluded are: NAICS 61- Educational Services, 62- Health Care, and 91- Public Administration.
In Figure 12, the solid lines indicate the unemployment rate excluding the specified industries, while the dotted lines indicate the total unemployment rates shown in Figure 10. Given how Statistics Canada gathers the industry and occupation specific unemployment rates (i.e. based on the job-seekers previous type of employment), these data do not accurately project the type of jobs (e.g. clerical assistant, lawyer) which the job-seeker is looking for.

Additionally, it is important to consider, when looking at the employment trends over time that not all industries are hit equally hard during a recession; in particular, Statistics Canada research found that service industries are affected less than other industries in a recessionary downturn. The unemployment figures shown in Figure 12 conceal an important distinction between types of service work: those tied to the essential infrastructure of households and businesses and those tied to their discretionary spending. Janitors and retail sales clerks, for instance, may be less dependent on discretionary spending than hotel staff and restaurant waiters. When a recession slashes the discretionary spending of households and businesses, it is

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10 “The effects of recession on the services industries,” in Services Indicators, 1st Quarter 2002 (Statistics Canada)
the relatively more “discretionary industries” that suffer the most. Accordingly, in the past two recessions (1981-82 and 1990-92), accommodations and food services was among the worst hit industries within the economy (Statistics Canada 2002). It is also an industry that accounts for 9% of all service class occupations in Ontario, with over 90% of its employment share drawn from the service class. In other words, not only is this industry susceptible to recessions, but impacts on this industry will be acutely felt by service class workers.

‘At Risk’ Groups Overrepresented in the Service Class

A recent working paper on *Prosperity, Inequality, and Poverty* (ICP 2007) found that particular groups were more at-risk of poverty than others. Using the same risk groups identified in that paper – high school dropouts, recent immigrants, lone parents, disabled, ‘unattached’ individuals between 45 and 64, and aboriginals – we used Census micro data to look at whether these risk groups are employed equally across classes, or over-represented in particular occupation classes.

We find that in Ontario, all risk groups except for recent immigrants have a higher share of their employment in service class than is observed in the overall labour force (38%). Lone parents are particularly over-represented in service class occupations. The reason for this is not immediately evident and closer investigation on the intersection of service class workers and poverty groups is a worthwhile research direction for Ontario policy-makers interested in economic prosperity. However, it is clear that lone parents are more likely than other groups to work in service class occupations and are at risk of poverty. As such, policies which support lone parents including publicly funded daycare, incentives for firms to provide child-care services, funding or tax credits for after-school programming, or even simply funding for public school activities may significantly improve the working life of lone parents, which account for roughly 6% of the Ontario labour force.

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12 Census micro data for ‘disabled’ was not available. The Institute for Competitiveness & Prosperity (ICP) study on this group was based on a supplementary Statistics Canada survey – Participation and Activity Limitation Survey, 2001 – which we do not use in this report.

13 Statistics Canada, 2001 Census, micro data. Please note: this analysis maps the census occupations to Florida’s occupation groupings as Census micro data does not have detailed occupation groups. For details on how this was done, refer to Appendix B.
It is not simply that these risk groups are vulnerable to poverty, or more likely to be employed in service class occupations, but their actual average wages are consistently lower than the occupational class average. For example, drawing on the average wage data provided in Table 1, in 2001 an average wage for a recent immigrant in the service class was less than 65% of the average service class wage. Similarly, the other ‘at risk’ groups experienced lower average wages than the average service class wage: aboriginal 67%, high school dropout 75%, lone parent 77%, and unattached 92%. Overall, these ‘at risk’ groups earned 60 to 80 percent of the typical wage for the respective classes; the category of ‘unattached’ was the exception earning between 87 and 97 percent of the average occupational class wage.

Table 1

‘At Risk’ Groups’ Average Wages by Class, Ontario 2001

<table>
<thead>
<tr>
<th>Class</th>
<th>Average</th>
<th>Recent Immigrant</th>
<th>High School Dropout</th>
<th>Aboriginal</th>
<th>Unattached (45-64)</th>
<th>Lone Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative</td>
<td>$52,729</td>
<td>$37,593 71.3%</td>
<td>$39,903 75.7%</td>
<td>$31,832 60.4%</td>
<td>$51,255 97.2%</td>
<td>$43,619 82.7%</td>
</tr>
<tr>
<td>Service</td>
<td>$31,325</td>
<td>$20,303 64.8%</td>
<td>$23,528 75.1%</td>
<td>$21,004 67.1%</td>
<td>$28,830 92.0%</td>
<td>$24,267 77.5%</td>
</tr>
<tr>
<td>Working</td>
<td>$40,981</td>
<td>$24,959 60.9%</td>
<td>$33,210 81.0%</td>
<td>$24,476 59.7%</td>
<td>$35,495 86.6%</td>
<td>$32,385 79.0%</td>
</tr>
<tr>
<td>FFF</td>
<td>$28,920</td>
<td>$19,681 68.1%</td>
<td>$25,945 89.7%</td>
<td>$28,908 100.0%</td>
<td>$25,259 87.3%</td>
<td>$20,757 71.8%</td>
</tr>
<tr>
<td>Total</td>
<td>$42,343</td>
<td>$27,604 65.2%</td>
<td>$29,852 70.5%</td>
<td>$25,011 59.1%</td>
<td>$37,978 89.7%</td>
<td>$31,412 74.2%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2001 Census micro data
The staggering under-representation of these risk groups in the creative class – high school dropouts (12%) and aboriginals (25%) in particular – raises questions about social inclusion in a ‘creative class’-led growth paradigm. The creative class thesis focuses on human capital development and deployment for economic growth; yet as shown in Table 1, not all groups benefit equally. Therefore, developing a creative class growth strategy that is sensitive to these groups and opportunities for their inclusion is important for Ontario in the creative age.

Finally, it is important that new policy developments are compatible with existing programs that support at-risk groups and those living in poverty. For example, a skills development or entrepreneurship program which precludes those receiving social assistance, or where their participation makes them ineligible to receive such assistance, may in fact counteract the redistributive or ethical objectives that, alongside productivity, are important for economic prosperity.

Wage Distributions and Ontario’s Occupational Classes

Using 2001 Census micro data, we have looked at the distribution of the share of wages by five percentile groupings, from the first percentile through the ninety-fifth.\(^{14}\) Across the three major classes, the wage distribution across occupational classes in Ontario was similar.

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\(^{14}\) Due to data restrictions in the census micro-data, higher percentiles (95 – 100\(^{th}\)) were not included because an upper cap – of either $120,000 or $200,000 depending – is used for data collection.
Yet when looking at the wages by percentile, as shown in Figure 14, it becomes apparent that across all three major classes, the wage rises fastest in the upper percentiles, and particularly so for the creative class. While the higher percentiles (e.g. 99th) were not included due to data limitations, it is expected that the increase would be even more pronounced for the last percentile. Nonetheless, the service class has the least income inequality with wages reaching $60,000 (95th percentile), as opposed to nearly $80,000 and $120,000 in the working- and creative- classes respectively. This may be because the top earners in each class have particular skills which are highly remunerated.

Looking over the last three Census periods for which data was available at the time of this analysis, it is clear that inequality is growing among all three classes, but is fastest within the creative class. In general, the inequality is driven by increased wage gains by the top percentiles in each class, as illustrated in Figures 15 through 17.
Figure 15

Source: Statistics Canada, Census micro data

Figure 16

Source: Statistics Canada, Census micro data

Figure 17

Source: Statistics Canada, Census micro data
**Service Class Occupations are Common in Particular Industries**

While this project has adopted an occupational approach to understanding the service class, service class occupations are not evenly distributed across all industries. The industry which employs the largest share (17%) of Ontario’s service class workers is Retail trade. Health care and social assistance follows at 10%, while Public administration, Accommodation and food services, and Manufacturing each account for 9% of Ontario’s service class jobs.  

An alternative way of looking at the intersection of industry and service class occupations is to identify industries that have a high share of the service class among their total employment, as shown below in Figure 18. However, because this data includes only full-year full-time workers, and thus excludes roughly 30% of the service class labour force, it may obscure or downplay industries that employ a lot of part-time workers.

**Figure 18**

*Employment Composition across Industries, Ontario 2001*

![Bar chart showing employment composition across industries in Ontario 2001.]

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15 Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada, Census 2001. See ‘Appendix C’ for a more complete distribution, based on the same analysis.
As shown in Figure 18, the accommodation and food services industry is comprised of over 90% service class employment, followed by: retail trade (77%); real estate and rental leasing (75%); administrative and support, waste management and remediation services (65%); public administration (54%); arts, entertainment and recreation (50%); health care and social assistance (48%); other services (45%); finance and insurance (45%); and wholesale trade (45%) are the top ten service class employing industries; they are also the only industries which hire above the aggregate industry average of 39% (Ontario: NAICS 1997 by NOC-S 2001).

Income Inequality for Women and Service Class Workers

Based on 2001 Census table data which links the NAICS (industrial classification) and NOC-S (occupational classification), we are not only able to look at the employment numbers and composition, but also the employment income across all industries. In Ontario, average employment income for full-time workers varies drastically across both industry and occupational class.

Figure 19
Average Employment Income by Class and Industry, Ontario 2001

Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada, Census 2001, Florida’s four classes.
In Figure 19, we see that the average creative class employment income is consistently the highest in every industry. Service class average employment incomes are typically the lowest, except in eight industries, of which only two have over 50% of their total employment composed of service class workers: Real estate etc. (75%) and Public administration (54%).

In terms of average income, the service class does badly as compared to the creative class occupations, even in industries that have a high proportion of service class employment. Accommodation and food services, for example is composed of 90% service class employment, yet those workers earn $24,900 – less than half as much as creative class occupations in the same industry ($54,500). Given that this data excludes part-time workers, the average employment income for the service class is likely overstated. Another way of looking at income differences is to index average wages to show how a particular occupational class does in an industry (in terms of average employment income) relative to the average income in that industry among all four of Florida’s occupational classes. \(^{16}\) In fact, in 2001 only two industries – Construction and Agriculture, forestry, fishing and hunting – were service class earns average incomes at or above the average industry income.\(^{17}\)

A more troubling observation than the consistently lower remuneration of the service class (which is, after-all conceptually defined as low-wage, low-autonomy occupations), is that females are dominant in the service class across all industries. Analysis of 2001 census data examines the ratio of female to male full-time workers by class and industry, and finds that certain industries – health care and social assistance in particular – have over-representation of women. Moreover, across all industries, even those with fewer females than males in the industry, it is clear that the service class occupations consistently have the highest ratio of females to males working in that industry. In other words, while some industries’ labour forces are feminized, service class occupations are even more-so.

\(^{16}\) Indexed average wages shown in ‘Appendix C’ include the agricultural occupational classes in the calculation, but not graphically in the figure.

\(^{17}\) Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada, Census 2001. See ‘Appendix C’ for a more complete distribution, based on the same analysis.
### Table 2
#### Average Employment Income by Gender, Ontario 2001

<table>
<thead>
<tr>
<th>Classification</th>
<th>Males</th>
<th>Females</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative class</td>
<td>$74,190</td>
<td>$50,646</td>
<td>0.68</td>
</tr>
<tr>
<td>Service class</td>
<td>$45,739</td>
<td>$31,761</td>
<td>0.69</td>
</tr>
<tr>
<td>Working class</td>
<td>$43,013</td>
<td>$28,687</td>
<td>0.67</td>
</tr>
<tr>
<td>Fishing/Farming/Forestry</td>
<td>$32,539</td>
<td>$21,876</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Note: The ratio is of female to male average employment income.
Source: Statistics Canada, Census 2001, Florida’s four classes.

In terms of average employment income by gender, females consistently earn less than males across all classes. Even in the service class, where women account for over 60% of the labour force, female average employment income in Ontario was equivalent to only 69% of the average male employment income in the service class. In fact, the average employment income ratio between females and males is relatively even across all classes – between 67 and 69%. While the data in Table 2 are not adjusted for education, experience or training, it is interesting that the observed income ratio persists across occupational classes, especially because each occupational class has different levels of university attainment (i.e. creative class: 30%; service class: 10%; working class: 5%). Presumably, if differences in education and training were contributing to observed employment income differences, then it would be logical to expect occupational classes with higher aggregate university attainment (i.e. creative class) to have noticeably more income equality across gender.

As such, evidence of a persistent income gap raises significant concerns over income inequality, not only in the service class, but in the entire Ontario economy. Questions of discrimination, glass ceilings, and potential under-valuation of women’s work – both for female-dominant occupations (or industries) and within occupations for women – need to be explored and addressed.

Even though similar shares of the service and creative classes are self-employed, analysis using 2001 census data finds that average employment income varies by class and industry. Among all industries, average income for self-employed creative class workers is roughly twice that of service workers. As such, policies to encourage self-employment or entrepreneurship are more likely to be beneficial – in terms of income, thought perhaps not in terms of program take-up – for the creative class than for the service class. Targeted training policies may improve and encourage entrepreneurship among classes, but it must be sensitive to differences among occupations and industries to benefit service workers as well as the creative class.
Discussion

As part of an ongoing dialogue towards achieving greater prosperity for all Ontarians, this report offers a productive starting point. We have scanned a range of literatures to identify insights which help contextualize and develop intuition about service class work. We also conduct detailed analysis of Statistics Canada data in order to present a more complete empirical picture of Ontario’s service class than has previously been compiled. Building on the findings presented above in the first two major sections of this report – the Literature Review and the Ontario Service Class Profile – this section brings together the literature and data surrounding a few key themes which emerge from both as relevant to Ontario’s service class and economy.

Gender

The service class accounts for over 40% of the national labour force, and in Ontario, over 60% of those occupations are held by women. The dynamics of any sector are affected by its demographics, and the gendering of service class work is a distinguishing feature of this occupational class – one that is clear in both the empirical profile and academic literature. Insights from the literature suggest that gender is an important aspect for understanding service work, because it addresses the dynamics of service interactions and emotional labour. Additionally, service work includes significant occupations associated with care-giving and re-productive work – as reflected in both the literature and occupation code classifications – which, despite a history of professionalization, may maintain and reproduce inequalities. For instance, service class work (which is predominantly female) earns less than 60% of average creative class incomes, while women in all occupational classes earn below 70% of their male counterparts.

Precarity

With almost 3 out of 10 service class workers employed part-time and the lowest union membership among occupational classes, Ontario’s data supports arguments in the literature that service class workers experience a shared tendency to precarity. The overarching character of vulnerability is expressed in terms of contingent and flexible labour relationships (e.g. part-time, contract, and work intensification). The over-representation of groups at risk of poverty, and lone parents in particular, is another indication of vulnerability within the service class.

From the data and literature, it is unknown the extent to which Ontario’s service workers experience non-wage benefits from work (e.g. supplemental health and dental benefits). These benefits may have a disproportionately positive impact on their prosperity and quality of life. However, anecdotal
evidence suggests that employers offer prevailing market wages and benefits, which means that traditional intermediaries or institutions, such as unions, may be a more direct intervening mechanism in affecting benefits of service class workers. Alternatively, there may be local or jurisdictional advantages to working in particular places where working conditions, wages, benefits, etc., conform to particular standards. Also, the work environment – physical space and collegiate attitudes – was mentioned as a non-economic workplace benefit.

A part of the concept of precarity is work-related risk, and while the aggregate data does not reflect experiences, literature suggests that service workers are exposed to front-line risks which may result in service workers experiencing disproportionately negative quality of work life. They may be exposed to workplace hazardous chemicals, sexual and racial discrimination and harassment, dangerous and threatening customer behaviour, isolation, highly varying weekly hours, seasonal layoffs, etc. Addressing these issues may create higher productivity gains than other interventions at lower costs. More detailed surveys should be conducted of individuals working in service class jobs to identify work related risks and find solutions to mitigate them.

Under-valuation of service class work

Three mutually reinforcing aspects of the undervaluation of service work are social stigma, concepts of ‘productive work’, and remuneration. The first relates to the general lack of respect accorded to service work and associated challenges to the dignity of workers. The second pertains to framing economic systems such that service work is ancillary to creative and manufacturing production. Finally, the most obvious under-valuation is the relatively low wages accorded to service work.

Service work is mostly low-skill, low-wage employment. This defines their prosperity in unequivocally negative ways, potentially separate from their productivity. Service workers in Ontario earn less than 60% of their colleagues in the creative class. Even within the service class, particular sub-groups of the labour force earn significantly less than the average income for their occupational class – recent immigrants (65% of average), high school dropouts (75% of average), aboriginals (67% of average), and lone parents (77% of average).

A major challenge of this project has been the lack of compelling productivity-wage argument and conception for the service class. Traditional measures of productivity – such as output, plant size, or total factor productivity – are not as easily or clearly applied to services. Moreover, research has articulated that service work in particular may not be valued as productive, despite its essential contribution to a healthy economy. Data on Ontario’s service class earning profile is consistent with arguments in the literature which suggest that service work is undervalued. Whether this is because of dual labour markets, or the
current framing of care-giving and re-productive work as peripheral to ‘real’ economic activity and thus less productive, this report suggests that current valuation of service work needs to be realigned with its contributions to a well-functioning modern economy, rather than associated with particular measures of productivity.

Unlike the transformation away from low-skill manufacturing jobs, because most service work must be local, there are few opportunities to shift low skilled work away from Ontarians and thereby increase the median skill level of Ontario jobs. In other words, this is a challenge that we need to address in our home jurisdiction.

**Recommendations**

What are the opportunities for service work in Ontario to create additional value and for service workers to appropriate greater value from the work they do? We have, through a review of the recent academic literature and Ontario data come up with areas for policy recommendations. They are discussed below, and not presented in a particular order of importance.

**Maintain and extend pay equity measures.**

The dynamics of any sector are affected by its demographics. Within the service class in particular, we find a disproportionate presence of women in the work force. Alongside this, we find that, as a general trend across all classes, females earn less than 70% of their male counterparts. Notwithstanding the need for further exploration, both the data above in addition to the aforementioned literature leads us to believe that there is significant scope for maintaining and extending pay equity measures.

The observed average employment income disparity is significant within the service class. Pay equity, legislation, and policies which support gender equality in the workplace will be of benefit to women participating in Ontario’s workforce across occupational classes, and in the service class in particular.

**Extend supports for ‘at risk’ groups.**

Particular groups within the population – recent immigrants, high-school dropouts, aboriginals, and lone parents – are more at risk of being poor; these groups also appear to earn less than peers within the Ontario economy across all occupational classes. Moreover, these groups tend to be employed in service occupations more than other classes, with a few exceptions noted in the report. Three associated initiatives are suggested. First, consult these groups: conduct a
focused study on the concerns, struggles, and opportunities these particular groups face in Ontario employment in general, and service class occupations in particular. Second, ensure current and new programs and policies are compatible and do not reduce eligibility for other government programs and supports. Third, encourage employment and training programs targeted at these groups, ideally based on the first consultation, which encourage skills development, quality experience internships, etc.

**Promote entrepreneurship.**

Given the comparable rates of self-employed workers in both the service and creative class, it seems reasonable that policies to encourage and support self-employment and small business development would help raise the prosperity of both these classes. However, as noted in this report, while the take up of such incentives or programs may be expected to be similar, we know that the average employment income which the self-employed earn varies substantially across classes. As such, government policies in this area should be sensitive to the particular needs of specific class and occupations which are self-employed, and aware that programs that result in greater incidence of self-employment may not improve the material well being of self-employed workers evenly. A poorly conceived entrepreneurship program could be detrimental to the service class.

**Maintain, support and publicize workplace rights and resources.**

Because the service class includes potentially marginal groups such as part-time workers, females, youth, ‘at risk’ groups, and non-unionized workers, service workers are vulnerable as a class. Ontario should maintain and support institutions (e.g. WSI&B, Ombudsman) and promote awareness – both to the public and to firms – about workplace practices, standards and rights. Publicizing, maintaining and expanding these supports is important for those who face risks as front line workers, in addition to having (potentially) little recourse available to them as a class.

In conclusion, the “Ontario in the Creative Age” report offers an opportunity to reflect on the structure of Ontario’s economy: how it is and how it could be. We have the chance, in other words, to make our economy more efficient and more equitable. This does not necessarily entail an outright redistribution policy, but rather that we accord service class occupations a more prominent position in economic policy and planning. Meeting the needs of the service class involves a qualitative shift in how we structure, view and value economic activity. This report demonstrates that service class work in particular must be reconsidered because it is essential – not ancillary – to Ontario’s economy.
It is important to consider how new social safety nets and improved infrastructure support workers in service class occupations. Do new systems facilitate the daily mobility of part-time workers, improve work environment for female employees, or ease the tensions between employment and caregiving of lone-parents? These are examples of the many important questions to consider which particularly affect workers in service class jobs – an employment group that constitutes nearly half of Ontario’s labour force.
Bibliography


Appendices

Appendix A – Service Class NOC-S

The following two-digit occupation codes from NOC-S were included in the empirical definition of the occupational classes, as identified in Florida’s work.

Service Class – NOC-S

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupation Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2</td>
<td>Managers in retail trade, food and accommodation services</td>
</tr>
<tr>
<td>(A3/2)</td>
<td>Other Managers</td>
</tr>
<tr>
<td>B2</td>
<td>Secretaries</td>
</tr>
<tr>
<td>B3</td>
<td>Administrative and regulatory occupations</td>
</tr>
<tr>
<td>B4</td>
<td>Clerical Supervisors</td>
</tr>
<tr>
<td>B5</td>
<td>Clerical Occupations</td>
</tr>
<tr>
<td>B6</td>
<td>Assist ing Occupations in Support of Health Services</td>
</tr>
<tr>
<td>E2</td>
<td>Paralegals, social services workers and occupations in educations and religion</td>
</tr>
<tr>
<td>G0</td>
<td>Sales and service supervisors</td>
</tr>
<tr>
<td>G1</td>
<td>Wholesale, technical, insurance, real estate sales specialists, and retail wholesale and grain buyers</td>
</tr>
<tr>
<td>G2</td>
<td>Retail Salespersons and sales clerks</td>
</tr>
<tr>
<td>G3</td>
<td>Cashiers</td>
</tr>
<tr>
<td>G4</td>
<td>Chefs and cooks</td>
</tr>
<tr>
<td>G5</td>
<td>Occupations in food and beverage service</td>
</tr>
<tr>
<td>G6</td>
<td>Occupations in protective services</td>
</tr>
<tr>
<td>G7</td>
<td>Occupations in travel and accommodation, including attendants in recreation and sports</td>
</tr>
<tr>
<td>G8</td>
<td>Child Care and home support workers</td>
</tr>
<tr>
<td>G9</td>
<td>Sales and service occupations</td>
</tr>
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</table>

Creative Class-NOC-S

Creative Professionals

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupation Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0</td>
<td>Senior management occupations</td>
</tr>
<tr>
<td>A1</td>
<td>Specialist Managers</td>
</tr>
<tr>
<td>(A3 Other Managers, n.e.c)/2</td>
<td></td>
</tr>
<tr>
<td>B0</td>
<td>Professional occupations in business and finance</td>
</tr>
<tr>
<td>B1</td>
<td>Finance and insurance administration occupations –</td>
</tr>
<tr>
<td>B2</td>
<td>Professional Occupations in Health</td>
</tr>
<tr>
<td>D1</td>
<td>Nurse Supervisors and Registered Nurses</td>
</tr>
<tr>
<td>D2</td>
<td>Technical and Related Occupations In Health</td>
</tr>
</tbody>
</table>

Super Creative Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Occupation Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C0</td>
<td>Professional Occupations in Natural and Applied Sciences</td>
</tr>
<tr>
<td>C1</td>
<td>Technical Occupations Related to Natural and Applied Sciences</td>
</tr>
</tbody>
</table>
E0 Judges, Lawyers, Psychologists, Social Workers, Ministers of Religion, and Policy and Program Officers
E1 Teachers and Professors
F0 Professional Occupations in Art and Culture
F1 Technical Occupations in Art, Culture, Recreation and Sport

Working Class-NOC-S
HO Contractors and supervisors in trades and transportation
H1 Construction Trades
H2 Stationary engineers, power station operators and electrical trades and telecommunications occupations
H3 Machinists, metal forming, shaping and erecting occupations
H4 Mechanics
H5 Other trades n.e.c.
H6 Heavy equipment and crane operators, including drillers
H7 Transportation equipment operators and related workers, excluding laborers
H8 Trades helpers, construction and transportation laborers and related occupations
I2 Primary production laborers
J0 Supervisors in manufacturing
J1 Machine operators in manufacturing
J2 Assemblers in manufacturing
J3 Laborers in processing, manufacturing and utilities

Fishing/Farming/Forestry-NOC-S
I0 Occupations unique to agriculture, excluding laborers
I1 Occupations unique to forestry operations, mining, oil and gas extraction and fishing, excluding laborers
Appendix B – Census micro data occupation classifications

Proxy used to classify Census occupations (micro data) into four occupation categories consistent with Florida’s framework.

<table>
<thead>
<tr>
<th>2001 / 1996 Census Micro Data:</th>
<th>1991 Census Micro Data:</th>
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</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>Class</td>
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<tr>
<td>Senior management</td>
<td>C</td>
</tr>
<tr>
<td>Other management</td>
<td>C</td>
</tr>
<tr>
<td>Professional business and finance</td>
<td>C</td>
</tr>
<tr>
<td>Financial, secretarial,administrative</td>
<td>S</td>
</tr>
<tr>
<td>Clerical occs/supervisors</td>
<td>S</td>
</tr>
<tr>
<td>Natural and applied sciences</td>
<td>C</td>
</tr>
<tr>
<td>Prof health,registered nurses, supervisors</td>
<td>C</td>
</tr>
<tr>
<td>Technical,assisting,related health occs</td>
<td>S</td>
</tr>
<tr>
<td>Social science,government,religion</td>
<td>C</td>
</tr>
<tr>
<td>Teachers and professors</td>
<td>C</td>
</tr>
<tr>
<td>Art,culture,recreation,sport</td>
<td>C</td>
</tr>
<tr>
<td>Wholesale,technical,insurance,real estate</td>
<td>S</td>
</tr>
<tr>
<td>Retail trade</td>
<td>S</td>
</tr>
<tr>
<td>Chefs and cooks, etc</td>
<td>S</td>
</tr>
<tr>
<td>Protective services</td>
<td>S</td>
</tr>
<tr>
<td>Childcare and home support workers</td>
<td>S</td>
</tr>
<tr>
<td>Travel,accommodation,recreation, sport</td>
<td>S</td>
</tr>
<tr>
<td>Trades and transportation</td>
<td>W</td>
</tr>
<tr>
<td>Construction trades</td>
<td>W</td>
</tr>
<tr>
<td>Other trades occupations</td>
<td>W</td>
</tr>
<tr>
<td>Transport and equipment operators</td>
<td>W</td>
</tr>
<tr>
<td>Trades helpers,labourers etc</td>
<td>W</td>
</tr>
<tr>
<td>Occ unique to primary industries</td>
<td>F</td>
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<tr>
<td>Manufacturing supervisors, operators, etc</td>
<td>W</td>
</tr>
<tr>
<td>Manufacturing, utilities, etc labourers</td>
<td>W</td>
</tr>
</tbody>
</table>
Appendix C – Additional Data Figures

Service class distribution across industries, Ontario 2001

Note: The “All other” category includes NAICS with percentages including and below 4 percent, these are Agriculture, forestry, fishing and hunting, Mining & oil & gas extraction, Utilities, Construction, Transportation and warehousing, Information and cultural industries, Real estate & rental & leasing, Professional, scientific & technical services, Management of companies & enterprises, Educational services, and Arts, entertainment and recreation.

Source: Statistics Canada, Census 2001, Florida’s four classes.
Indexed average income (NAICS / NOC-S), Ontario 2001

Ontario, Average employment income as index of total, Census 2001 full-year full-time workers, total class of workers, both males and females

Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada, Census 2001, Florida’s four classes.
Gender ratio of average employment income (NAICS / NOC-S), Ontario 2001

Ontario, Average employment income as index (females/males), Census 2001
full-year full-time workers, total class of worker

All Industries
Health care and social assistance
Educational services
Finance and insurance
Management of companies and enterprises
Accommodation and food services
Retail trade
Information and cultural industries
Arts, Entertainment and recreation
Public administration
Administrative and support, waste management...
Other services (except public administration)
Real estate and rental and leasing
Professional, scientific and technical services
Wholesale trade
Agriculture, forestry, fishing and hunting
Manufacturing
Transportation and warehousing
Utilities
Construction
Mining and oil and gas extraction

Team Bio

Amy Cervenan is a PhD student in economic geography at the University of Toronto. With a background in economics (McGill) and a master's degree in urban planning (University of Toronto), her interests include cultural economy, urban development, and economic and social policy. Amy has research experience as both an academic and consultant, and has co-authored reports on post-secondary education policies in Canada.

Yousuf Haque is an MBA student at the Rotman School of Management at the University of Toronto. His undergraduate degree was in Mathematics and Religion from Dartmouth College. Prior to his graduate studies, he worked as a consultant and strategist for McKinsey & Co. and Audible Inc. respectively. In addition to his research on the service class for the Martin Prosperity Institute, Yousuf has researched urban and rural employment trends for the Institute for Competitiveness and Prosperity. He is currently a part-time Associate with Surje & Company, and has recently been accepted to the PhD program in Finance at the Rotman School of Management.

Sana Nisar is a researcher at the Institute for Competitiveness & Prosperity. Sana joined the Institute in 2005 after completing a Bachelor of Business Administration at the University of Toronto. At the Institute, she has been involved in the creation and publication of several research projects including Working Paper 8-11, Annual Report 4-7, and Report on Canada and 2006-2008; she has also assisted in the research of economics professors at the University of Toronto. Sana was a co-author of the Institute’s study “Assessing Toronto’s financial services cluster,” published in June 2007 and researched the economic impact of head offices for the Competition Review Panel. Most recently, Sana completed research for the Martin Prosperity Institutes’ report Ontario in the Creative Age. Sana is an active member of the Economic Development Committee at the Toronto Board of Trade.
Working Paper Series

This working paper is part of the Ontario in the Creative Age series, a project we are conducting for the Ontario Government. The project was first announced in the 2008 Ontario Budget Speech, and its purpose is to understand the changing composition of Ontario’s economy and workforce, examine historical changes and projected future trends affecting Ontario, and provide recommendations to the Province for ensuring that Ontario’s economy and people remain globally competitive and prosperous.

The purpose of the working papers in this series is to engage selected issues related to our report: Ontario in the Creative Age. The series will involve a number of releases over the course of the coming months. Each paper has been reviewed for content and edited for clarity by Martin Prosperity Institute staff and affiliates. As working papers, they have not undergone rigorous academic peer review.

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