

Creative Class Workers

in
Dufferin County

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Workforce Planning Board
of Waterloo Wellington Dufferin



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Report written by Dane Rice
Labour Market Information Analyst
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Executive Summary

The creative class is a socio-economic class identified as the key driving force for economic development of post-industrial cities. It is comprised of knowledge workers, intellectuals and various types of artists. This class is significantly less prominent in Dufferin County as it represents 26% of total employment locally compared to 34% of total employment in Ontario. The employment growth rate of the creative class has been higher in Dufferin County than Ontario, and in both geographies it has grown faster than the average of all occupations.

Collectively, there is a net surplus of creative class workers commuting out of Dufferin County for work. Dufferin County is highly concentrated with 23 creative class occupations, of which the most fall within Health occupations. Two industries in Dufferin County each employ over 500 creative class workers: Educational services and Professional, scientific and technical services. Creative class occupations are particularly low in Agriculture, Accommodation and food services, Construction, Manufacturing and Utilities.

Methodology

Based on the framework of Dr. Richard Florida, employment data for Dufferin County was disseminated into classes of occupations. Creative class employment was examined in terms of location of work, local representation, and concentration by industry. Opportunities in growth industries for creative class workers in declining industries were also identified.

Data was sourced from the Census (2001-2006) and Canadian Business Patterns (2003-2010). Similar data for Ontario was sourced as a benchmark when useful. Industries were examined at the 3-digit level of the North American Industry Classification System (NAICS).

1 Overview of Workers by Class

Dr. Richard Florida's framework examines labour markets by classes: Working, Service, and Creative (and its super-creative core). Together with the primary industries of fishing, farming, and forestry, all working people in a given economy are represented.

On a North-American scale, the working class has steadily declined over the past 60 years, while fishing, farming, and forestry have declined greatly for over a century. The service class has been the largest class for 50 years and continues to be nearly 15% larger than any other class. The creative class and its super-creative core each grew gently until 1970 when their employment growth accelerated.

Employment growth both provincially and in Dufferin County continues to be led by the large service class. However, the creative class has been growing at a faster rate than any other class in Dufferin County. The local creative class and its super-creative core each have a higher growth rate than provincial level. The creative class represents 26% of total employment in Dufferin County and 34% of total employment in Ontario.

WORKERS BY CLASS, 2006

	Workers in Dufferin County	Share of Workforce		Growth Rate 2001 to 2006	
		Dufferin County	Ontario	Dufferin County	Ontario
Total All Occupations	18,940			13%	6%
Creative Class	4,895	26%	34%	19%	8%
Super Creative Core	2,050	11%	17%	17%	12%
Service Class	9,100	48%	45%	17%	9%
Working Class	4,100	22%	18%	6%	-2%
Fishing / Farming / Forestry	895	5%	2%	-8%	-5%

2 Defining the Creative Class

The Creative Class* is comprised of:

Creative Professionals

These professionals are classic knowledge-based workers. They draw on complex bodies of knowledge to solve specific problems, using high degrees of education to do so. They include:

- Management occupations
- Business and financial operations occupations
- Legal occupations
- Healthcare practitioners and technical occupations
- High-end sales and sales management

Super-Creative Core

Those belonging to this group fully engage in creative and innovative processes. Along with problem solving, their work may entail problem finding. They include:

- Computer and mathematical occupations
- Architecture and engineering occupations
- Life, physical, and social science occupations
- Education, training, and library occupations
- Arts, design, entertainment, sports, and media occupations

*See Appendix for a complete list of creative class occupations.

3 Workforce by Place of Work Compared to Place of Residence

A large majority of Dufferin County’s workforce both lives and works within the region. However, as daily commuting in and out of the region occurs, two subtly different workforces can be recognized by an imbalance of which occupations these commuters work in. The composition of the workforce by place of work compared to the workforce by place of residence reveals different concentrations of certain occupational groups. The following table examines these differences within the creative class occupations.

For example, there are more people who work in Management occupations commuting *out* of the region to work than there are commuting *in*. Within this occupational group, there is an especially high net number of outward commuters who work as Senior managers of goods production, utilities, transportation and construction. Conversely there are more people who work as Program leaders and instructors *in* recreation and sport commuting in to the region to work than there are commuting *out*.

RELATIVELY CONCENTRATED CREATIVE CLASS OCCUPATIONS BY WORKFORCE Dufferin County

Place of Residence (net surplus of outward commuters)	Place of Work (net surplus of inward commuters)
<p>Management Occupations</p> <p><i>led by...</i> • Senior Managers - Goods production, utilities, transportation and construction</p> <p>Architecture and Engineering Occupations</p> <p><i>led by...</i> • Air Pilots</p> <ul style="list-style-type: none"> • Flight Engineers • Flying Instructors <p>Education, Training, and Library Occupations</p> <p><i>led by...</i> • Elementary School and Kindergarten Teachers</p>	<p>There are no major occupational groups that collectively have a net surplus of inward commuters to Dufferin County. There are however individual occupations that have a small net surplus of inward commuters and they are:</p> <ul style="list-style-type: none"> • Program Leaders and Instructors in Recreation and Sport • Pharmacists

4 Concentration of Local Creative Class Workers

Measuring the concentration level of an occupation in Dufferin County compared to the concentration level in Ontario produces a location quotient. This quotient indicates the local areas of specialization, as well as possible shortages.

$$\text{Location Quotient} = \frac{\% \text{ of local employment in an occupation}}{\% \text{ of provincial employment in an occupation}}$$

A location quotient of 1.00 would mean that the occupation is equally concentrated in this County as it is at the provincial level.

If a location quotient is **greater** than 1.25, the occupation is highly concentrated in the local workforce.

If a location quotient is **less** than .75, the occupation may be under-represented in the local workforce.

In Dufferin County, the most heavily concentrated creative class occupation compared to the provincial average is Recreation, sports and fitness program and service director. They are nearly three times as heavily concentrated in this area as they are in Ontario. There are seven other occupations with workforces that are each over twice as heavily concentrated in this County as they are in Ontario.

In total there are 23 creative class occupations that are of high local concentration compared to Ontario and have at least 20 local workers. Grouped by their wider occupational groups, the breakdown is as follows:

- 7 Health Occupations
- 5 Natural and Applied Science Occupations
- 4 Management Occupations
- 3 Social Science, Education, Government Service and Religion Occupations
- 3 Arts, Culture, Recreation and Sport Occupations
- 1 Business, Finance and Administrative Occupations

There are many more creative class occupations that are of low local concentration compared to Ontario. Most are of expectably low concentration because the area's industrial composition doesn't support their employment, however certain occupations may be essential to any workforce and may be under-represented.

HIGH LOCATION QUOTIENTS
Creative Class Occupations-Dufferin County
(*Super-Creative Core)

Creative Class Occupation (with NOC ¹ Code)	Location Quotient
0513 Recreation, sports and fitness program and service directors	2.84
*5225 Audio and video recording technicians	2.73
3234 Ambulance attendants and other paramedical occupations	2.66
*4167 Recreation, sports and fitness program supervisors and consultants	2.54
*2264 Construction inspectors	2.40
3114 Veterinarians	2.21
0016 Senior managers - goods production, utilities, transportation and construction	2.17
3233 Licensed practical nurses	2.06
*2233 Industrial engineering and manufacturing technologists and technicians	1.79
1231 Bookkeepers	1.73
*2134 Chemical engineers	1.72
0313 School principals and administrators of elementary and secondary education	1.66
3222 Dental hygienists and dental therapists	1.62
3235 Other technical occupations in therapy and assessment	1.61
*5133 Musicians and singers	1.59
*4142 Elementary school and kindergarten teachers	1.57
0012 Senior government managers and officials	1.57
*5136 Painters, sculptors and other visual artists	1.48
*4166 Education policy researchers, consultants and program officers	1.44
*2252 Industrial designers	1.37
3215 Medical radiation technologists	1.31
*2234 Construction estimators	1.29
3131 Pharmacists	1.25

Interpretation example:

- For every one Recreation, sports and fitness program and service director per capita in Ontario, there are 2.84 Recreation, sports and fitness program and service directors per capita in Dufferin County.

*Each occupation listed has a minimum of 20 local workers

¹ National Occupation Classification

LOW LOCATION QUOTIENTS
Creative Class Occupations-Dufferin County
(*Super-Creative Core)

Creative Class Occupation (with NOC Code)	Location Quotient
* 4131 College and other vocational instructors	0.20
* 2171 Information systems analysts and consultants	0.21
* 2282 User support technicians	0.21
* 2174 Computer programmers and interactive media developers	0.23
* 4112 Lawyers and Québec notaries	0.29
1121 Specialists in human resources	0.30
0122 Banking, credit and other investment managers	0.31
0213 Computer and information systems managers	0.33
* 2242 Electronic service technicians (household and business equipment)	0.34
* 2132 Mechanical engineers	0.36
0013 Senior managers - financial, communications and other business services	0.37
* 2281 Computer network technicians	0.39
0611 Sales, marketing and advertising managers	0.49
1111 Financial auditors and accountants	0.49
* 5124 Professional occupations in public relations and communications	0.51
1232 Loan officers	0.56
0121 Insurance, real estate and financial brokerage managers	0.60
1114 Other financial officers	0.62
0112 Human resources managers	0.64
* 5121 Authors and writers	0.70
* 4153 Family, marriage and other related counsellors	0.72
1112 Financial and investment analysts	0.73
0014 Senior managers - health, education, social and community services and membership organizations	0.73

Interpretation example:

- The local share of College and other vocational instructors is only 20% of the share of College and other vocational instructors at the provincial level.

*Each occupation listed has a minimum of 20 local workers

5 Creative Class Workers by Industry

In the following tables, a high or low concentration of creative class workers in an industry is any in which the concentration is more than eight percentage points above or below the average of all industries ie. A creative class employment share of more than 34% is considered high and an employment share less than 18% is considered low.

High Concentrations

Two industries in this area employ over 500 creative class workers: Education and Professional, scientific and technical services. Of the top four industries with the highest volume of creative class workers, each also has at least half of its workforce comprised of creative class workers. Three small manufacturing industries have high creative class concentrations.

Dufferin County's Hospitals have a higher share of creative class workers compared to the provincial level of that industry (75% locally compared to 68% provincially). Local, municipal, and regional public administration also enjoy this higher creative class content (41% locally compared to 31% provincially). Local Professional, scientific and technical services has a significantly lower share of creative class workers than the provincial industry (67% locally compared to 73% provincially).

HIGH CREATIVE CLASS CONTENT INDUSTRIES Dufferin County

Industry (with NAICS ² code)	Total Employment	Creative Class Employment	Creative Class Employment Share
ALL INDUSTRIES	18,940	4,895	25.7%
611 Educational services	1,245	930	74.7%
541 Professional, scientific and technical services	880	590	67.0%
622 Hospitals	565	425	75.2%
621 Ambulatory health care services	420	215	51.2%
913 Local, municipal and regional public admin.	365	150	41.1%
713 Amusement, gambling and recreation industries	425	150	35.3%
522 Credit intermediation and related activities	240	105	43.8%
512 Motion picture and sound recording industries	115	85	73.9%
711 Performing arts, spectator sports	75	65	86.7%
523 Securities, commodity contracts, and other financial investment and related activities	55	40	72.7%
451 Sporting goods, hobby, book and music stores	90	40	44.4%
339 Miscellaneous manufacturing	85	35	41.2%
311 Food manufacturing	90	35	38.9%
418 Miscellaneous wholesaler-distributors	45	30	66.7%
519 Other information services	45	30	66.7%
912 Provincial and territorial public administration	85	30	35.3%
488 Support activities for transportation	40	25	62.5%
322 Paper manufacturing	45	25	55.6%
511 Publishing industries (except Internet)	50	20	40.0%

² North American Industry Classification System

Low Concentrations

Creative class occupations are particularly low in the broader sectors of Agriculture, Accommodation and food services, Real estate, Construction and Manufacturing.

Local Plastics and rubber products manufacturing has a low creative class content but it does have a higher share of creative class workers than the provincial average for that sector (16% locally compared to 11% provincially.) Six manufacturing sectors have low creative class concentrations, as do each of the construction sectors.

Local Transportation equipment manufacturing has a lower local share of creative class workers than the provincial level of that sector (9% locally compared to 13% provincially). With low concentrations of creative class workers compared to other local industries as well as the provincial level of the same industry, this sector could be experiencing shortages of creative class workers.

LOW CREATIVE CLASS CONTENT INDUSTRIES Dufferin County

Industry (with NAICS code)	Total Employment	Creative Class Employment	Creative Class Employment Share
ALL INDUSTRIES	18,940	4,895	25.7%
326 Plastics and rubber products manufacturing	655	105	16.0%
336 Transportation equipment manufacturing	985	85	8.6%
452 General merchandise stores	600	85	14.2%
624 Social assistance	515	80	15.5%
445 Food and beverage stores	820	75	9.1%
811 Repair and maintenance	520	75	14.4%
812 Personal and laundry services	300	45	15.0%
238 Specialty trade contractors	430	40	9.3%
721 Accommodation services	240	40	16.7%
722 Food services and drinking places	1,420	35	2.5%
236 Construction of buildings	225	35	15.6%
332 Fabricated metal product manufacturing	355	30	8.5%
531 Real estate	310	30	9.7%
111-112 Farms	775	25	3.2%
331 Primary metal manufacturing	190	20	10.5%
485 Transit and ground passenger transportation	135	20	14.8%
416 Building material and supplies wholesaler-distributors	120	20	16.7%

LOW CREATIVE CLASS CONTENT INDUSTRIES (continued)
Dufferin County

Industry (with NAICS code)	Total Employment	Creative Class Employment	Creative Class Employment Share
ALL INDUSTRIES	18,940	4,895	25.7%
321 Wood product manufacturing	145	10	6.9%
237 Heavy and civil engineering construction	120	10	8.3%
327 Non-metallic mineral product manufacturing	120	10	8.3%
211 Oil and gas extraction	10	0	0.0%
212 Mining (except oil and gas)	10	0	0.0%
312 Beverage and tobacco product manufacturing	85	0	0.0%
313 Textile mills	15	0	0.0%
315 Clothing manufacturing	25	0	0.0%
325 Chemical manufacturing	80	0	0.0%
335 Electrical equipment, appliance and component manufacturing	25	0	0.0%
337 Furniture and related product manufacturing	75	0	0.0%
414 Personal and household goods wholesaler-distributors	35	0	0.0%
415 Motor vehicle and parts wholesaler-distributors	65	0	0.0%
419 Wholesale agents and brokers	40	0	0.0%
442 Furniture and home furnishings stores	65	0	0.0%
454 Non-store retailers	40	0	0.0%
491 Postal service	70	0	0.0%
493 Warehousing and storage	20	0	0.0%
518 Internet service providers, web search portals, and data processing services	15	0	0.0%
532 Rental and leasing services	55	0	0.0%
562 Waste management and remediation services	20	0	0.0%
712 Heritage institutions	10	0	0.0%
814 Private households	75	0	0.0%
911 Federal government public administration	30	0	0.0%

6 Opportunities in Growth Sectors for Creative Class Workers in Declining Industries

Declining industries in Dufferin County are those that had both a loss of workers between 2001 and 2006 and a loss (or no gain) of business establishments between 2003 and 2010. Growth industries in Dufferin County are those that had both a gain of workers between 2001 and 2006 and a gain (or no loss) of business establishments between 2003 and 2010. Of the six sectors with significant employment loss, four of these were sectors that had a particularly low creative class content. Sporting goods, hobby, book and music stores was the only sector with a high creative class content that declined in employment during this period.

DECLINING INDUSTRIES Dufferin County

Industry (with NAICS code)	2001 to 2006 Employment Change	2003 to 2010 Establishment Change	Creative Class Content
332 Fabricated metal product manufacturing	-100	-3	Low
336 Transportation equipment manufacturing	-95	-1	Low
326 Plastics and rubber products manufacturing	-40	-4	Low
446 Health and personal care stores	-35	-9	Average
451 Sporting goods, hobby, book and music stores	-35	-2	High
721 Accommodation services	-35	0	Low

GROWTH INDUSTRIES
Dufferin County

Industry (with NAICS code)	2001 to 2006 Employment Change	2003 to 2010 Establishment Change	
232 Trade contracting	200	97	
611 Educational services	145	13	
811 Repair and maintenance	135	18	
561 Administrative and support services	130	40	
512 Motion picture and sound recording industries	95	12	
445 Food and beverage stores	80	0	
812 Personal and laundry services	75	6	
443 Electronics and appliance stores	65	3	
417 Machinery, equipment and supplies wholesaler-distributors	40	5	
541 Professional, scientific and technical services	35	200	
221 Utilities	20	0	
531 Real estate	15	228	
418 Miscellaneous wholesaler-distributors	15	11	
339 Miscellaneous manufacturing	15	5	
562 Waste management and remediation services	15	4	
334 Computer and electronic product manufacturing	15	2	
419 Wholesale agents and brokers	10	6	
526 Funds and other financial vehicles	10	2	
314 Textile product mills	10	0	
712 Heritage institutions	10	0	
115 Support activities for agriculture and forestry	5	12	
814 Private households	5	1	
911 Federal government public administration	5	0	

The following tables examine growth industries where creative class workers in the top declining industries could possibly seek work. With each occupation and industry listed is the number of workers in 2006.

Declining Industry: FABRICATED METAL PRODUCT MANUFACTURING
Jobs lost 2001 to 2006: 100
Number of Employers lost 2003 to 2007 : 3

Creative class occupations in Fabricated Metal Product Manufacturing	Growth industries where this occupation is prevalent and offers employment opportunities
Senior managers - goods production, utilities, transportation and construction (10)	<ul style="list-style-type: none"> • Specialty trade contractors (10) • Miscellaneous manufacturing (10)
Industrial engineering and manufacturing technologists and technicians (10)	<ul style="list-style-type: none"> • Professional, scientific and technical services (10)
Drafting technologists and technicians (10)	<ul style="list-style-type: none"> • Professional, scientific and technical services (10)

Interpretation example:

- As of 2006, there were 10 Senior managers - goods production, utilities, transportation and construction in the declining industry of Fabricated metal product manufacturing. The growth industry of Specialty trade contractors has 10 Senior managers - goods production, utilities, transportation and construction in its workforce.

Declining Industry: TRANSPORTATION EQUIPMENT MANUFACTURING
Jobs lost 2001 to 2006: 95
Number of Employers lost 2003 to 2010 : 1

Creative class occupations in Transportation Equipment Manufacturing	Growth industries where this occupation is prevalent and offers employment opportunities
Industrial engineering and manufacturing technologists and technicians (65)	• Professional, scientific and technical services (10)
Financial auditors and accountants (10)	• Professional, scientific and technical services (55)
Mechanical engineers (10)	• Professional, scientific and technical services (10)

Declining Industry: PLASTICS AND RUBBER PRODUCTS MANUFACTURING
Jobs lost 2001 to 2006: 40
Number of Employers lost 2003 to 2010 : 4

Creative class occupations in Plastics and Rubber Products Manufacturing	Growth industries where this occupation is prevalent and offers employment opportunities
Sales, marketing and advertising managers (25)	<ul style="list-style-type: none"> • Machinery, equipment and supplies wholesaler-distributors (15) • Specialty trade contractors (10) • Miscellaneous wholesaler-distributors (10) • Professional, scientific and technical services (10)
Senior managers - goods production, utilities, transportation and construction (10)	<ul style="list-style-type: none"> • Specialty trade contractors (10) • Miscellaneous manufacturing* (10)
Human resources managers (10)	• Utilities (10)
Chemical engineers (10)	• Professional, scientific and technical services (20)

Declining Industry: HEALTH AND PERSONAL CARE STORES
Jobs lost 2001 to 2006: 35
Number of Employers lost 2003 to 2010 : 9

Creative class occupations in
 Health and Personal Care Stores

Growth industries where this occupation
 is prevalent and offers employment opportunities

Retail trade managers (10)

- Food and beverage stores (65)
- Electronics and appliance stores (20)

Declining Industry: SPORTING GOODS, HOBBY, BOOK, AND MUSIC STORES
Jobs lost 2001 to 2006: 35
Number of Employers lost 2003 to 2010 : 2

Creative class occupations in
 Sporting Goods, Hobby, Book, and Music Stores

Growth industries where this occupation
 is prevalent and offers employment opportunities

Retail trade managers (10)

- Food and beverage stores (65)
- Electronics and appliance stores (20)

Declining Industry: ACCOMMODATION SERVICES
Jobs lost 2001 to 2006: 35
Number of Employers lost 2003 to 2010 : 0

Creative class occupations in
 Accommodation Services

Growth industries where this occupation
 is prevalent and offers employment opportunities

Financial managers (10)

- Professional, scientific and technical services (15)
- Computer and electronic product manufacturing (10)

Human resources managers (10)

- Utilities (10)

Appendix

Complete List: CREATIVE CLASS OCCUPATIONS (*Super-Creative Core)

A011	Legislators
A012	Senior government managers and officials
A013	Senior managers - Financial, communications and other business services
A014	Senior managers - Health, education, social and community services and membership organizations
A015	Senior managers - Trade, broadcasting and other services, n.e.c.
A016	Senior managers - Goods production, utilities, transportation and construction
A111	Financial managers
A112	Human resources managers
A113	Purchasing managers
A114	Other administrative services managers
A121	Engineering managers
A122	Computer and information systems managers
A123	Architecture and science managers
A131	Sales, marketing and advertising managers
A141	Facility operation and maintenance managers
A211	Retail trade managers
A301	Insurance, real estate and financial brokerage managers
A302	Banking, credit and other investment managers
A303	Other business services managers
A311	Telecommunication carriers managers
A321	Managers in health care
A322	Administrators, post-secondary education and vocational training
A323	School principals and administrators of elementary and secondary education
A324	Managers in social, community and correctional services
A331	Government managers, health and social policy development and program administration
A332	Government managers, economic analysis, policy development and program administration
A333	Government managers, education policy development and program administration
A334	Other managers in public administration
A341	Library, archive, museum and art gallery managers
A342	Managers, publishing, motion pictures, broadcasting and performing arts
A343	Recreation and sports program and service directors
B011	Financial auditors and accountants
B012	Financial and investment analysts
B013	Securities agents, investment dealers and brokers
B014	Other financial officers
B021	Specialists in human resources
B022	Professional occupations in business services to management
B111	Bookkeepers
B112	Loan officers
B113	Insurance adjusters and claims examiners
B114	Insurance underwriters
B115	Assessors, valuers and appraisers
B116	Customs, ship and other brokers
C011	Physicists and astronomers
C012	Chemists
C013	Geologists, geochemists and geophysicists
C014	Meteorologists
C015	Other professional occupations in physical sciences
C021	Biologists and related scientists
C022	Forestry professionals

Complete List: CREATIVE CLASS OCCUPATIONS (continued) (*Super-Creative Core)

- * C023 Agricultural representatives, consultants and specialists
- * C031 Civil engineers
- * C032 Mechanical engineers
- * C033 Electrical and electronics engineers
- * C034 Chemical engineers
- * C041 Industrial and manufacturing engineers
- * C042 Metallurgical and materials engineers
- * C043 Mining engineers
- * C044 Geological engineers
- * C045 Petroleum engineers
- * C046 Aerospace engineers
- * C047 Computer engineers (except software engineers)
- * C048 Other professional engineers, n.e.c.
- * C051 Architects
- * C052 Landscape architects
- * C053 Urban and land use planners
- * C054 Land surveyors
- * C061 Mathematicians, statisticians and actuaries
- * C071 Information systems analysts and consultants
- * C072 Database analysts and data administrators
- * C073 Software engineers
- * C074 Computer programmers and interactive media developers
- * C075 Web designers and developers
- * C111 Chemical technologists and technicians
- * C112 Geological and mineral technologists and technicians
- * C113 Meteorological technicians
- * C121 Biological technologists and technicians
- * C122 Agricultural and fish products inspectors
- * C123 Forestry technologists and technicians
- * C124 Conservation and fishery officers
- * C125 Landscape and horticultural technicians and specialists
- * C131 Civil engineering technologists and technicians
- * C132 Mechanical engineering technologists and technicians
- * C133 Industrial engineering and manufacturing technologists and technicians
- * C134 Construction estimators
- * C141 Electrical and electronics engineering technologists and technicians
- * C142 Electronic service technicians (household and business equipment)
- * C143 Industrial instrument technicians and mechanics
- * C144 Aircraft instrument, electrical and avionics mechanics, technicians and inspectors
- * C151 Architectural technologists and technicians
- * C152 Industrial designers
- * C153 Drafting technologists and technicians
- * C154 Land survey technologists and technicians
- * C155 Mapping and related technologists and technicians
- * C161 Non-destructive testers and inspectors
- * C162 Engineering inspectors and regulatory officers
- * C163 Inspectors in public and environmental health and occupational health and safety
- * C164 Construction inspectors
- * C171 Air pilots, flight engineers and flying instructors
- * C172 Air traffic control and related occupations

Complete List: CREATIVE CLASS OCCUPATIONS (continued) (*Super-Creative Core)

- * C173 Deck officers, water transport
- * C174 Engineer officers, water transport
- * C175 Railway traffic controllers and marine traffic regulators
- * C181 Computer and network operators and web technicians
- * C182 User support technicians
- * C183 Systems testing technicians
- D011 Specialist physicians
- D012 General practitioners and family physicians
- D013 Dentists
- D014 Veterinarians
- D021 Optometrists
- D022 Chiropractors
- D023 Other professional occupations in health diagnosing and treating
- D031 Pharmacists
- D032 Dietitians and nutritionists
- D041 Audiologists and speech-language pathologists
- D042 Physiotherapists
- D043 Occupational therapists
- D044 Other professional occupations in therapy and assessment
- D111 Head nurses and supervisors
- D112 Registered nurses
- D211 Medical laboratory technologists and pathologists' assistants
- D212 Medical laboratory technicians
- D213 Veterinary and animal health technologists and technicians
- D214 Respiratory therapists, clinical perfusionists and cardio-pulmonary technologists
- D215 Medical radiation technologists
- D216 Medical sonographers
- D217 Cardiology technologists
- D218 Electroencephalographic and other diagnostic technologists, n.e.c.
- D219 Other medical technologists and technicians (except dental health)
- D221 Denturists
- D222 Dental hygienists and dental therapists
- D223 Dental technologists, technicians and laboratory bench workers
- D231 Opticians
- D232 Midwives and practitioners of natural healing
- D233 Licensed practical nurses
- D234 Ambulance attendants and other paramedical occupations
- D235 Other technical occupations in therapy and assessment
- * E011 Judges
- * E012 Lawyers and Quebec notaries
- * E021 Psychologists
- * E022 Social workers
- * E023 Family, marriage and other related counsellors
- * E024 Ministers of religion
- * E025 Probation and parole officers and related occupations
- * E031 Natural and applied science policy researchers, consultants and program officers
- * E032 Economists and economic policy researchers and analysts
- * E033 Business development officers and marketing researchers and consultants
- * E034 Social policy researchers, consultants and program officers
- * E035 Education policy researchers, consultants and program officers

Complete List: CREATIVE CLASS OCCUPATIONS (continued) (*Super-Creative Core)

- * E036 Recreation, sports and fitness program supervisors and consultants
- * E037 Program officers unique to government
- * E038 Other professional occupations in social science, n.e.c.
- * E039 Health policy researchers, consultants and program officers
- * E111 University professors
- * E112 Post-secondary teaching and research assistants
- * E121 College and other vocational instructors
- * E131 Secondary school teachers
- * E132 Elementary school and kindergarten teachers
- * E133 Educational counsellors
- * F011 Librarians
- * F012 Conservators and curators
- * F013 Archivists
- * F021 Authors and writers
- * F022 Editors
- * F023 Journalists
- * F024 Professional occupations in public relations and communications
- * F025 Translators, terminologists and interpreters
- * F031 Producers, directors, choreographers and related occupations
- * F032 Conductors, composers and arrangers
- * F033 Musicians and singers
- * F034 Dancers
- * F035 Actors and comedians
- * F036 Painters, sculptors and other visual artists
- * F111 Library and archive technicians and assistants
- * F112 Technical occupations related to museums and art galleries
- * F121 Photographers
- * F122 Film and video camera operators
- * F123 Graphic arts technicians
- * F124 Broadcast technicians
- * F125 Audio and video recording technicians
- * F126 Other technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts
- * F127 Support occupations in motion pictures, broadcasting and the performing arts
- * F131 Announcers and other broadcasters
- * F132 Other performers
- * F141 Graphic designers and illustrators
- * F142 Interior designers
- * F143 Theatre, fashion, exhibit and other creative designers
- * F144 Artisans and craftspersons
- * F145 Patternmakers, textile, leather and fur products
- * F151 Athletes
- * F152 Coaches
- * F153 Sports officials and referees
- * F154 Program leaders and instructors in recreation and sport



Workforce Planning Board
of Waterloo Wellington Dufferin

218 Boida Ave., Unit 5
Ayr, Ontario, N0B 1E0
tel: 519-622-7122
fax: 519-622-7260
info@workforceplanningboard.com
www.workforceplanningboard.com

