

2006

# Occupational Drill Down of Training Needs in the Milwaukee Metro Area

John Pawasarat

*University of Wisconsin - Milwaukee*, pawasara@uwm.edu

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## Recommended Citation

Pawasarat, John, "Occupational Drill Down of Training Needs in the Milwaukee Metro Area" (2006). *ETI Publications*. Paper 71.  
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## Occupational Drill Down of Training Needs in the Milwaukee Metro Area

Prepared for the Private Industry Council of Milwaukee County by the Employment and Training Institute, University of Wisconsin-Milwaukee, October 2006

This report provides an occupational drill down, focusing on training needs identified for specific occupations and job titles by employers participating in the May 2006 Survey of Job Openings, conducted by the University of Wisconsin-Milwaukee Employment and Training Institute for the Private Industry Council of Milwaukee County. This drill down study focuses on the estimated 17,020 full-time and 7,036 part-time openings jobs in the four counties of the Milwaukee MSA (i.e., Milwaukee, Waukesha, Ozaukee and Washington counties). Training needs are identified for high demand occupations served by Milwaukee Area Technical College and the Private Industry Council of Milwaukee County.

Six occupational areas are examined where technical training is required.

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Appendix A identifies occupational areas with 100 or more full-time openings and 100 or more part-time openings in the four-county Milwaukee area.

### Introduction

The Milwaukee job openings surveys were developed by the University of Wisconsin-Milwaukee Employment and Training Institute in 1990s at the request of the City of Milwaukee. Five government partners collaborated on this ongoing Milwaukee Labor Market Project: the City of Milwaukee, Milwaukee Public Schools, Milwaukee Area Technical College, the University of Wisconsin-Milwaukee, and the Private Industry Council of Milwaukee County. Milwaukee is the first major city in the nation to regularly study job openings in order to assess the number and type of jobs available and the level of skill training employers need to fill openings. Surveys have been conducted semi-annually or annually since 1993. This year at the request of the Private Industry Council of Milwaukee County, the Employment and Training Institute conducted the job openings survey for the seven-county Milwaukee Region, including for a first time review of job needs and demand in Kenosha, Racine and Walworth counties.

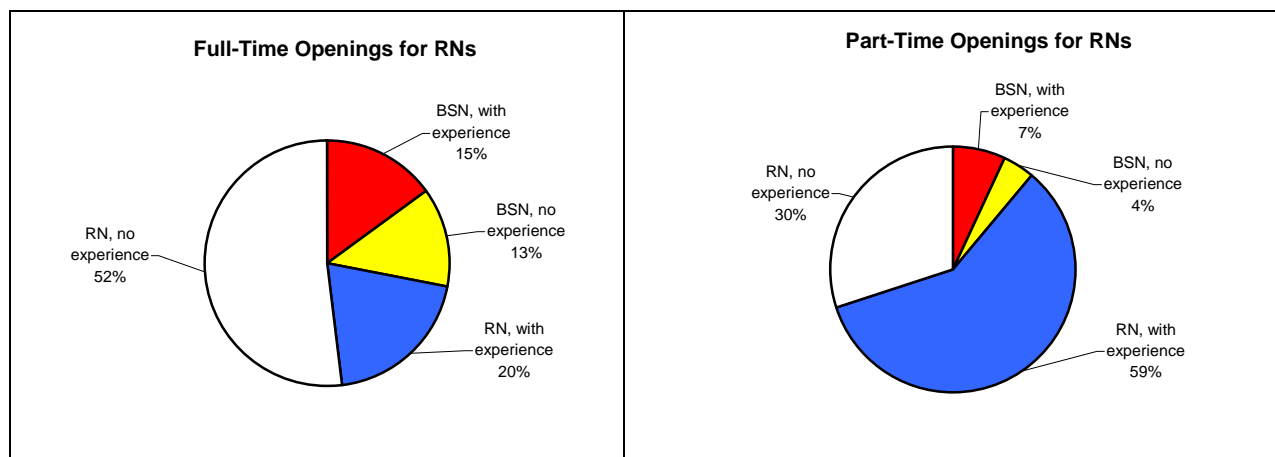
*The Milwaukee drill image is used for the Employment and Training Institute drill downs with permission from Milwaukee Electric Tool, Inc.*

For the May 2006 survey, 3,312 employers in the region provided data on all their job openings. This paper is the third in a series of reports on the survey findings.<sup>1</sup> The two previous reports, **Survey of Job Openings in the Milwaukee Metropolitan Area: Week of May 24, 2006** and **An Analysis of Job Openings in the Milwaukee Region: Job Supply and Demand**, are posted online at [www.eti.uwm.edu](http://www.eti.uwm.edu).

## I. Health Care Workers

Needs in the health care field continue to dominate the job openings reported, including high demand for nurses, certified nursing assistants, health aides, and technically trained specialists.

**Nurses (RNs and BSNs)** -- Registered nurses represent the single occupation in highest demand in the Milwaukee Region, with an estimated 766 full-time openings and 550 part-time openings. About a fourth of the full-time openings require a four-year bachelor of science degree (BSN) while 72% of full-time openings accept registered nurses without a four-year college degree. About 11% of part-time openings require a BSN.

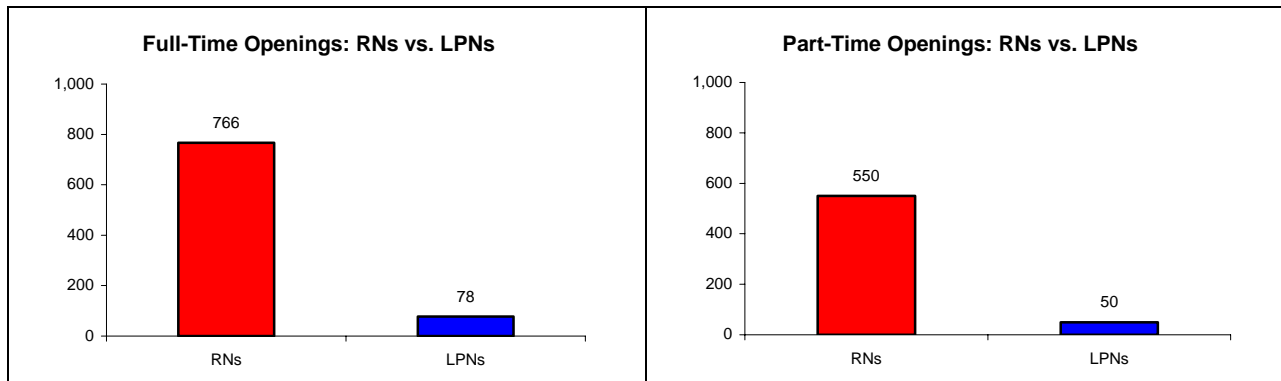


- About 15% of full-time openings for RNs require a bachelor of science degree (BSN) or master's degree along with prior years of nursing experience. Nurse practitioner positions require a master's degree, while many of the BSN positions are for nursing supervisors, coordinators of special units (e.g., infection control, lung cancer, pain program, women's health services), research nurses, and referral specialists. Supervisory positions typically require at least 3-5 years of nursing experience, while jobs for clinicians and unit nurses often accept 1-2 years of experience.

<sup>1</sup> The Employment and Training Institute's report on **An Analysis of Job Openings in the Milwaukee Region: Job Supply and Demand** examined 27,075 job openings in the 7 counties of the Milwaukee Region, including 1,568 full-time and 1,450 part-time openings in Racine, Kenosha and Walworth counties. However, only 1% of City of Milwaukee resident workers and only 1% of Milwaukee County residents commute to jobs in the 3 southern counties, given the times and distances involved and the types of jobs available. Since the southern counties are outside of the Milwaukee labor market, the 3,018 job openings in the southern counties are not included in this drilldown analysis.

- Another 13% of the full-time jobs are for nurses with Bachelor of Science degrees, but with no prior nursing experience specified. In some cases, however, these positions may require special certification (e.g., radiology pediatric nurses, education specialists).
- About half (52%) of full-time openings for nurses require registered nurse certification (without a four-year degree) and no prior experience. These include RNs working various hospital units and clinical settings.
- Positions for RNs with prior experience range from positions requiring only 1 year experience (e.g., for RN floater positions, home health care, school nurse, operating room staff, phone service outreach). More often 3 to 5 years experience is required (e.g., for neonatal, nursing supervisors, intensive care).

**Licensed practical nurses (LPNs)** -- Far lower demand is seen for licensed practical nurses than for RNs. In May 2006 employers reported full-time openings for an about 78 LPNs compared to openings for 766 RNs. Employers reported part-time openings for 50 LPNs compared to openings for 550 RNs. About half of full-time openings and a third of part-time openings for LPNs required prior nursing experience.



**Nursing assistants** -- Local hospitals, clinics, nursing homes, and other health care providers report job openings for an estimated 446 nursing assistants – 124 for full-time jobs and 322 part-time jobs. These include positions for certified nursing assistants, patient care assistants, patient care technicians, and behavioral health technicians. In most cases, workers are sought with CNA (certified nursing assistant) certification, but prior experience in the field is not required. Usually high school graduation is required.

**Health aides** – Health care facilities also reported need for over 500 health aides (178 full-time and 324 part-time). These included openings for trained and certified workers, including medical assistants, occupational therapy assistants, phlebotomists, and physical therapy assistants, as well as nursing students. Other positions typically required a year or less of technical training in areas such as chiropractic assistants, patient access representatives, rehab technicians, and sterile processing technicians, while positions for dietary assistants and lab assistants often had no requirements other than high school completion.

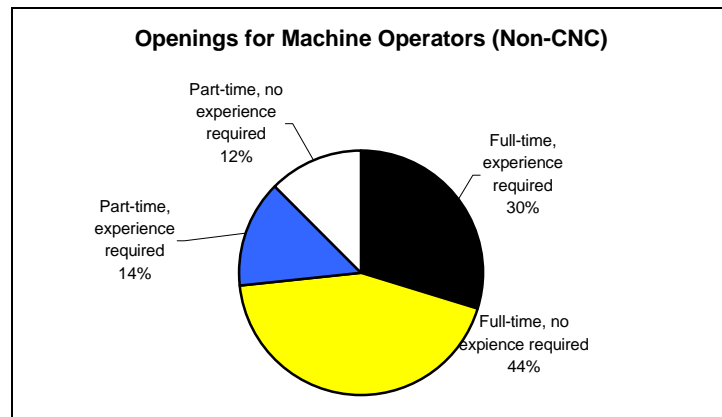
**Health technicians and technologists** -- In May 2006, employers reported need for about 383 health technicians and technologists, (e.g., CT specialists, dental hygienists, echocardiography technologists, mammography technicians, medical technologists, pharmacy technician, polysomnographic technologists, radiologic technologists, sonographers, surgical technologists, ultrasound technologists). Two-thirds of these positions were for full-time work.

## II. Manufacturing Openings

In May 2006 the manufacturing sector showed an all-time high in full-time openings (4,495 vacancies) for the last decade. Full-time jobs in manufacturing were at their second highest level since the Employment and Training Institute job openings surveys began in 1993.

**CNC operators** -- Employers reported 275 openings (including 238 full-time jobs) computer numerical control (CNC) machine operators with wages ranging from \$11.00 to \$23.42 an hour. Nearly two-thirds of the full-time positions required at least 2 to 5 years of on-the-job experience.

**Machine operators** -- Openings were reported for an additional 1,025 machine operators. Three-fourths (74%) of these openings were for full-time work, and over half were available to workers where prior machine operator experience was preferred but not required.



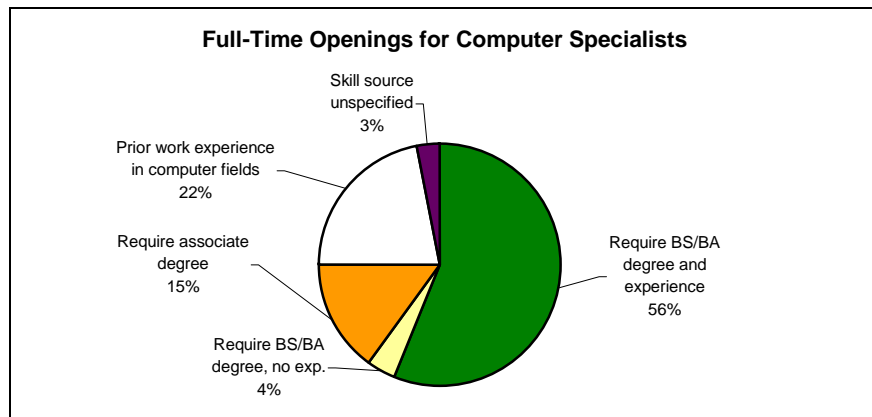
**Assemblers** -- An estimated 382 openings were reported in May 2006 for assemblers, with over 90% of the openings for full-time work. Wages started at \$8.25 an hour for positions with no education (including high school graduation) or training required and paid over \$20 an hour for experienced heavy mechanical assemblers.

**Welders** -- Employers reported an estimated 351 full-time openings for welders. All of the openings reported were for **experienced** welders.

### III. Computer Specialists

Demand for computer specialists has escalated with over 1,200 full-time jobs available in computer fields. Two trends have emerged. First, the high demand for computer specialists, which had lessened somewhat in the early 2000s, has reemerged. Employers are advertising for openings for computer specialists, particularly for experienced professionals with bachelor and associate degrees in computer science or engineering fields. Secondly, a growing number of occupations in all fields, including entry level jobs, are expecting computer literacy as a prerequisite for daily work.

For computer specialists, increasingly employers are specifying college degrees as prerequisite requirements for job openings. Sixty percent of the current full-time job openings require four-year college degrees (or more), usually BS degrees in computer science or engineering. Another 15% of openings require a technical college associate degree.



**Software engineers and systems analysts** – Most of the openings requiring four-year college degrees (or more) also required considerable professional work experience in computer technology. About 75 openings were noted for software engineers and other highly trained professionals with bachelor of science degrees in computer science or electrical engineering and field experience. In many cases, 5 to 10 years of experience in a computer area was required. In many cases these jobs show a national recruitment effort.

Other openings were for applications specialists, database administrators, IT project managers, network engineers, operations managers, product managers, programmer analysts, systems administrators, web developers, etc.

**Specialists with associate degrees** – Almost 200 openings for computer specialists required technical college degrees. These included positions for data network specialists, IT associates, network operations analysts, PBX operators, software trainers, web technicians, etc. Over half of these jobs also required prior years of on-the-job experience in specific computer fields.

**Other computer jobs** – Evidence of the rapid growth of the computer field and various ways workers acquire computer skills is shown in the significant number of openings where specific on-the-job experience is required but no college degree or coursework is mandated. About a fifth of the high-skill computer jobs fell in this category. Types of openings included computer operators, database analysts, graphic designers, IT consultants, systems developers, web programmers, etc. Often working knowledge of specific software applications is identified, e.g., relational databases, DB2 Z/OS database administration, CISCO, SQL, COBOL, Oracle, PeopleSoft, C/C++, MS Office Suite, LAN, Java.

### **Non-computer jobs where computer literacy is expected**

Since the computer has permeated nearly every occupational area, workers who are comfortable using the computer and learning new software applications are at a distinct advantage in the labor market. Those workers who left high school without acquiring these skills (or graduated before computers were part of the curriculum) may benefit from skill instruction and experience.

The following chart provides examples of job openings specifying need for computer literacy.

#### **Examples of Job Openings Requiring Computer Skills**

<b><u>Job Title</u></b>	<b><u>Summary of Education and Training Requirements</u></b>
Executive personal assistant	HS grad or GED, min. 3-5 yrs exp, computer skills
Executive secretary	HS diploma, 5+ yrs exp, exp with computer software
Marketing administrative assistant	HS grad or some college, 4+years exp, computer literate
Intern	Exp with computers, type 35 wpm, Microsoft office exp
Concierge	Proficiency with computer
Reservations sales rep	HS grad, 18+ yrs old, computer skills
Receptionist	Computer skills
Data integrity specialist	Medical record and terminology exp, basic computer skills
Distribution rep	High school or equivalent, 6 months exp in data entry
Purchasing asst	Math skills, computer proficiency
Corp benefit specialist	1-2 yrs exp in human resources field, computer skills
Registration specialist	BA, Oracle exp
Talent acquisition specialist	General PC knowledge
Training specialist	Training exp, computer proficiency
Unit clerk	Exp with computers and telephone, medical terminology
Clerk III radiology	HS grad, computer literate
Athletic business/ticket intern	PC computer exp, Oracle exp, BA accounting preferred
Junior accountant	1-3 yrs exp, computer and MS office literate
Customer service/billing	Computer skills, exp with MS excel and other apps
Patient acct rep	Health care billing exp, computer skills
Inst trust account associate 2	HS grad, PC skills
Project analyst 2	HS grad, MS office
Police dispatcher	Computer skills, pass various exams
Packaging specialist	Computer a plus

Customer service rep (teller)	HS diploma or Sr. Co-op, cash handling, computer skills
Internal associate	Knowledge of computer programs, marketing, employee management
Office help	Computer knowledge
Student assessment coordinator	Associate degree, Microsoft office exp
Hotel & catering coordinator	In-flight service exp, BA, computer exp
Medical assistant-dermatology	MS program, 1 yr exp, computer skills, CPR certification
Equipment installer	High school and computer experience
Online sorter operator	Ability to lift 20 lbs, PC skills
Material handler – inventory	Forklift and computer exp
Paper warehouse material handler	Math and computer skills
Shipping clerk	Computer experience, shipping and receiving

#### IV. Selected Service Occupations

**Food service workers** – The majority of food service positions currently open require neither high school graduation nor prior food service employment experience. Among jobs with large numbers of openings were 283 full-time jobs in food preparation and kitchen work (non-cooks), including jobs for food service assistants (for hospitals and nursing homes), cook assistants, sandwich makers, cake decorators, and dishwashers. Most of the 167 full-time openings for cooks did not require high school graduation but did require evidence of prior cooking experience or training. There may be opportunities for training to help food service workers advance to supervisory positions. An estimated 340 full-time openings were reported for food preparation and service supervisors and managers.

**Child care workers** – Employers reported openings for child care and family care workers (165 full-time openings and 56 part-time openings). In non-school settings the typical requirement for child care workers is completion of 40 hours of early childhood and development coursework.

**Bilingual workers** – Over 100 (mostly full-time) bilingual workers are now sought in a number of occupations, particularly for health care providers. Job openings for bilingual workers include positions for medical interpreters, language service specialists, clerical assistants, counselors, and sales staff. Most openings are for Spanish-speaking staff, although hospitals are also hiring part-time interpreters speaking Russian and Hmong. A few employers are seeking bilingual professionals as managers and supervisors.



## V. Clerking and Administrative Support Jobs

The processing of data and records creates a continuing demand for clerical workers with high school degrees, computer skills, and some college coursework. Over 1,100 full-time openings were reported for persons involved in information processing.

**Secretaries and administrative assistants** – An estimated 186 full-time openings were reported for higher skilled clerical staff to work as secretaries, administrative assistants, executive assistants, etc. These positions require high school completion, usually 2 years of college or an associate degree, and several years of on-the-job experience. This employment area may offer opportunity to workers who have been successful at receptionist and clerking jobs and who have completed technical college coursework.

**Receptionists and patient access specialists** – Almost 100 full-time openings and 76 part-time openings were for receptionists, patient access specialists, and patient access assistants. Some receptionist jobs were available for high school graduates without experience, but typically 1-2 years of work experience and post-secondary education were required or preferred.

**Order and billing clerks** -- About 283 full-time openings were reported for order, traffic, shipping and billing clerks. These jobs usually require a high school diploma or equivalency degree or related work experience.

**Records clerks** – Demand was shown for 123 full-time records clerks. Particularly in medical facilities, college coursework and specialized training was expected.

**Bookkeeper, accounting and auditing clerks** – At the same time that Milwaukee area employers are reporting a high demand for accountants and auditors with four-year college degrees and considerable experience, a need was reported for 181 bookkeeper, accounting and auditing clerks. Here, the associate degree was frequently required or preferred and college coursework or years of related experience were mandated.

**Information clerks and other administrative support workers** – Several hundred jobs were reported for office assistants, health information assistants, processing technicians, data specialists, patient services representatives, and patient registrar schedulers. High school completion was usually required and technical college coursework was also expected.

**Bank tellers and customer service representatives** – Positions are consistently reported for bank tellers (requiring high school graduation) and customer service representatives (typically also requiring 1-3 years of clerical experience). In May 2006, over 100 positions were reported for full-time workers and 50 for part-time workers.

## VI. Jobs Requiring a Valid Driver's License or Commercial Driver's License

A serious impediment to employment for many Milwaukee County workers is the absence of a valid driver's license and access to a car for transportation to jobs throughout the metro area. Prior Employment and Training Institute reports have documented the problems of driver's license suspensions and revocations, particularly for teenagers and adults penalized for failing to pay municipal and civil fines and forfeitures.<sup>2</sup>

An estimated 1,882 jobs (1,169 full-time positions and 713 part-time positions) specifically identified possession of a valid state driver's license as a job requirement. In many cases a commercial driver's license (CDL) was also required.

**Truck drivers** – Employers reported a need for 183 truck drivers (138 full-time and 45 part-time). These positions required a commercial driver's license.

**Bus drivers** – The openings for bus drivers in May 2006 were nearly all for part-time work, with 168 part-time positions open.

**Sales and other delivery drivers** – A total of 678 full-time and 365 part-time jobs were reported for sales-drivers, delivery drivers, labor and van drivers. All required a valid state driver's license and most required a good driving record. In some cases, a commercial driver's license was also required.

In addition, a number of jobs in various fields require possession of a valid driver's license as a prerequisite for employment. The table below provides examples of some of those positions.

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<sup>2</sup> See John Pawasarat, **The Driver License Status of the Voting Age Population in Wisconsin** (University of Wisconsin-Milwaukee Employment and Training Institute, 2005); John Pawasarat, **Removing Transportation Barriers to Employment: The Impact of Driver's License Suspension Policies on Milwaukee County Teens** (UWM Employment and Training Institute, 2000); John Pawasarat and Frank Stetzer, **Removing Transportation Barriers to Employment: Assessing Driver's License and Vehicle Ownership Patterns of Low-Income Populations** (UWM Employment and Training Institute, 1998); and Lois M. Quinn and John Pawasarat, **Neighborhood Indicators Central City Milwaukee: 1992-Present**, all available online at [www.eti.uwm.edu](http://www.eti.uwm.edu).

### Examples of Job Openings Requiring Driver's License

<b>Job Title</b>	<b>Summary of Education and Training Requirements</b>
Physical therapist	Exp, driver's license, MS in PT, licensed
Residential counselor	18, 2 yr exp, driver's license
Service technician-lead	Driver's license
Marketing associate	HS grad, driver's license
Service sales rep	Valid driver's license
Technical service rep	5 yrs mechanical exp, valid motorcycle license
Supervisor - a/c groomer	Driver's license, ability to lift 70 lbs
Installer, broadband	HS grad, driver's license
Patron services manager	Valid driver's license, written and verbal communication skills
Support specialist/unit secretary	Age 18, driver's license
Buyer 2	HS grad, 2 yrs exp, driver's license
Stock selector	Some education, driver's license
Security officer	Driver's license, HS grad diploma or equivalent
Nutrition site manager	Driver's license
Phlebotomist/donor specialist	HS grad, training in phlebotomy, driver's license
Parent educator	6 months exp, driver's license
Psychiatric technician	CNA, driver's license
Facility maintenance engineer I	Driver's license, 3 yrs exp
Housekeeper	HS grad, driver's license
Facility attendant II	1 yr exp, commercial driver's license
Cleaning associate	English speaking, GED, valid driver's license
General services assistant	6 months maintenance exp, driver's license
Head ice arena attendant	Age 18, driver's license
Groundskeeper assistant	Drivers license, 3 yrs of high school education
Highway/park workers	HS grad, driver's license
Truck mechanics mobile	HS grad, job training in diesel or heavy truck is a must
Carpenter	Remodel experience, tools, driver's license
Carpenter helper	Basic skills, driver's license
Painter	Must be willing to learn to the trade, driver's license, own vehicle
Shingler	Driver's license, 5 years experience, drug free
Sheetmetal apprentice svc	HS grad, driver's license
Equipment operator	1-3 yrs of exp, CDL
Recycling landfill attendant	18+ years, driver's license
Aircraft groomer	HS grad, driver's license

## APPENDIX A

### Full-Time Positions with 100 or More Openings: Milwaukee Metro Area, May 2006

<u>Openings</u>	<u>Job Title</u>
815	Machine operators (non-CNC)
766	Registered nurses
654	Computer programmers
591	Engineers (electrical, mechanical, civil, computer)
564	Driver-sales workers
463	Laborers (industries except construction and manufacturing)
424	Sales occupations, other business services
419	Helpers, mechanics, and repairers
383	Sales representatives, manufacturing and wholesale
352	Assemblers
351	Welders and cutters
340	Supervisors, food preparation and service occupations
320	Sales support occupations, n.e.c. (not elsewhere classified)
298	Accountants and auditors
283	Food preparation and kitchen occupations (non-cooks)
272	Securities and financial services sales occupations
265	Elementary and secondary school teachers
258	Computer systems analysts and scientists
251	Health technologists and technicians
239	Management analysts
239	Management related occupations, n.e.c.
238	CNC (computer numerical control) machine operators
234	Order clerks
220	Information clerks and receptionists
216	Janitors and cleaners
210	Sales counter clerks and cashiers
202	Garage and service station related occupations
186	Secretaries
183	Managers, marketing, advertising, and public relations
181	Bookkeepers, accounting, and auditing clerks
178	Health aides, except nursing
169	Personnel, training, and labor relations specialists
167	Cooks
160	Electrical and electronic engineers
160	Supervisors, general office
158	Managers and administrators, n.e.c., salaried
146	Laborers, manufacturing
141	Stock handlers and baggers
138	Truck drivers
134	Counselors, educational and vocational
132	Electricians
129	Painters, construction and maintenance
127	College faculty and instructors
126	Supervisors and proprietors, sales occupations, salaried

126	Computer operators
124	Nursing aides, orderlies, and attendants
124	Engineering technicians
123	Records clerks
119	Social workers
114	Motor transportation occupations, n.e.c.
114	Automobile mechanics
111	Administrative support occupations, n.e.c.
108	Hairdressers, cosmetologists and barbers
108	Child care workers
106	Bank tellers

**Part-Time Positions with 100 or More Openings: Milwaukee Metro Area, May 2006**

<b>Openings</b>	<b>Job Title</b>
550	Registered nurses
389	Sales counter clerks
324	Health aides, except nursing
322	Nursing aides, orderlies, and attendants
317	Food preparation and kitchen occupations (not incl. cooks)
304	Driver-sales workers
296	Cashiers
295	Stock handlers and baggers
247	Machine operators (including CNC)
246	Janitors and cleaners
242	Sales support occupations, n.e.c.
231	Administrative support occupations, n.e.c.
199	Hairdressers and cosmetologists
168	Bus drivers
167	Order clerks
155	Cooks
132	Health technologists and technicians
129	Food counter, fountain and related occupations
124	Freight, stock, and material handlers
121	Receptionists and information clerks
103	Waiters/waitresses' assistants
101	Records, stock and inventory clerks

*For more information on the job openings survey, see the Employment and Training Institute website at [www.eti.uwm.edu](http://www.eti.uwm.edu). University of Wisconsin-Milwaukee Employment and Training Institute, 161 W. Wisconsin Avenue, Suite 6000, Milwaukee, WI 53203. Phone 414-227-3380. Email [eti@uwm.edu](mailto:eti@uwm.edu).*