

# DELAWARE VALLEY DATA

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

## ANALYTICAL DATA REPORT

Regional Employer Survey: Entry-Level Jobs

No.5  
August 2001

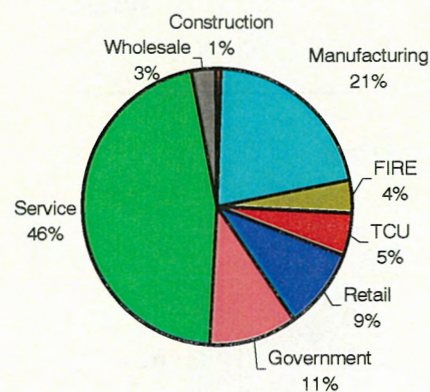
The Delaware Valley Regional Planning Commission is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning for the orderly growth of the Delaware Valley region. As the region's metropolitan planning organization (MPO), the Commission provides technical assistance and services to its member state and local governments. *Delaware Valley Data* is our periodic series of free data bulletins and analytical data reports. This analytical data report summarizes the results of a regional employer survey conducted by DVRPC in March and April of 1999 and serves as a technical supplement to DVRPC's publication *Starting Work: Entry-Level Jobs in the Delaware Valley* (Fall 2001). *Delaware Valley Data* reports are also available at [www.dvrpc.org](http://www.dvrpc.org).

### Background

As a regional agency, DVRPC strives to provide its member counties, the business community and the general public with timely information regarding key economic and policy issues used for transportation investment decisions, regional economic development activities, land use planning and environmental protection. The results of the employers' survey yield valuable information about entry-level labor force requirements, wage rates and future hiring. In addition, this survey explores important business establishment locational choice factors.

The Delaware Valley region is home to approximately 175,000 separate business establishments, only 2% (3,600) of which have more than 99 employees. This small percentage of establishments, however, accounts for over 40% of the region's total employment<sup>1</sup> and thus provides a cost-effective way to sample entry-level employment. Questionnaires were mailed to 1,800 of these larger establishments (see Appendix A) and usable surveys were received from 159 firms (4.4% of the universe of 3,600 largest establishments). While survey responses were concentrated in the Service (46%) and Manufacturing (21%) sectors, all single digit level SICs were represented with the exceptions of Agriculture and Mining (Figure 1). The survey's response rate was high enough to draw some statistically significant conclusions.

Figure 1 Distribution of Responses by Major Sector



FIRE = Finance Insurance Real Estate  
TCU = Transportation Communications Utilities

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### Defining Entry-Level Employment

The term "entry-level" is defined in several different ways in our country. Many public sector workforce

<sup>1</sup>Based on Dunn & Bradstreet Corporation's *Enhanced Telemarketing Employer Establishment File*, December, 1998.

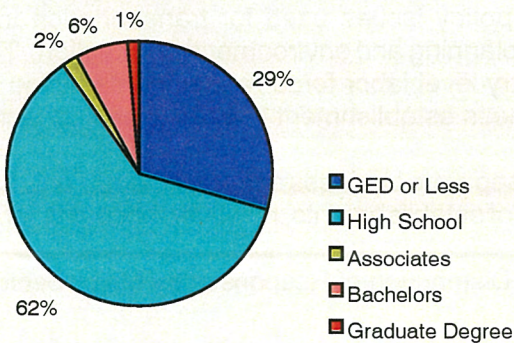
development professionals define entry-level as the lowest skill, lowest paid positions within an organization. Consequently, this interpretation narrowly defines entry-level as consisting of only one class of employee. This definition, while useful for welfare-to-work initiatives and other poverty relief efforts, does not provide a full picture of the true nature of entry-level employment. Although most survey respondents viewed entry-level employment in this traditional way, 15% answered our survey using a multiple hierarchy definition. Using the multiple hierarchy definition, entry-level is defined as the lowest level within a given hierarchy or class of employee. An establishment may therefore have many different types of entry-level positions with widely varying skill requirements (administrative, professional, and clerical positions, for example).

Because of welfare-to-work initiatives currently underway, this report focuses on entry-level employment as traditionally defined, since this is most appropriate considering the characteristics of the welfare-to-work labor pool. The following analysis therefore pertains only to the 159 responses that did not use the hierarchy definition. Readers are cautioned that while the results of this survey provide good information about entry-level employment as traditionally defined, it does not capture all classes of entry-level employment and only reflects the responses of a sample of the largest establishments in the region.

### Survey Results: Entry-Level Job Profile

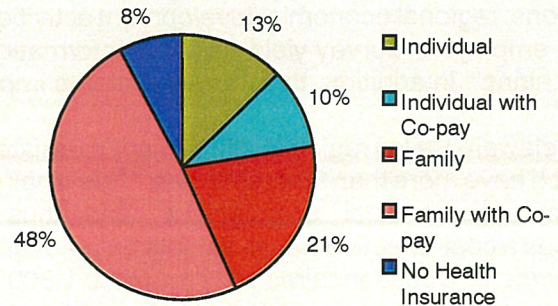
Figures 2 through 5 provide a profile of entry-level employment in the DVRPC region, based on the responses to survey questions 2, 5, 6 and 7 (refer to Appendix A). Over 90% of the region's largest establishments require no more than a high school degree for their traditional entry-level positions, with 62% requiring a high school degree

Figure 2  
Minimum Education Requirements



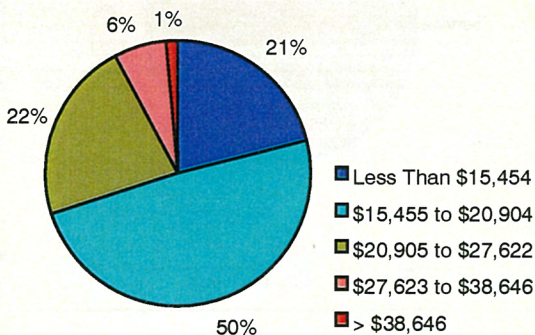
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Figure 3  
Entry Level Health Care Coverage



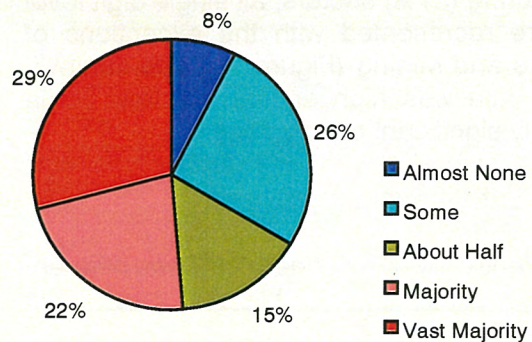
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Figure 4  
Salary / Wage Rate



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Figure 5  
Career Advancement



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and 29% requiring only a general equivalency diploma or less (Figure 2).<sup>2</sup> Fully 92% offer some kind of health benefits to their entry-level employees, not surprising given that 83% of the entry-level jobs described by survey respondents are full time (see question 4). Most of the region's largest establishments (69%) provide family coverage, and 34% provide family or individual coverage without employee co-pays (Figure 3). Although only 8% of all entry-level jobs offer no health insurance of any kind, 2/3 of all entry-level employees have to either contribute to or provide their own health coverage, which places a significant financial burden on these lower paid workers.

Although over 79% of all entry-level jobs pay at least a living wage for an individual, approximately 71% of the region's entry-level jobs pay below a living wage for a family of four (Figure 4).<sup>3</sup> Fortunately, 51% of the region's largest establishments indicated that the "majority" or "vast majority" of their entry-level jobs offer career advancement while about a third offer "almost none" or just "some" career advancement (Figure 5).

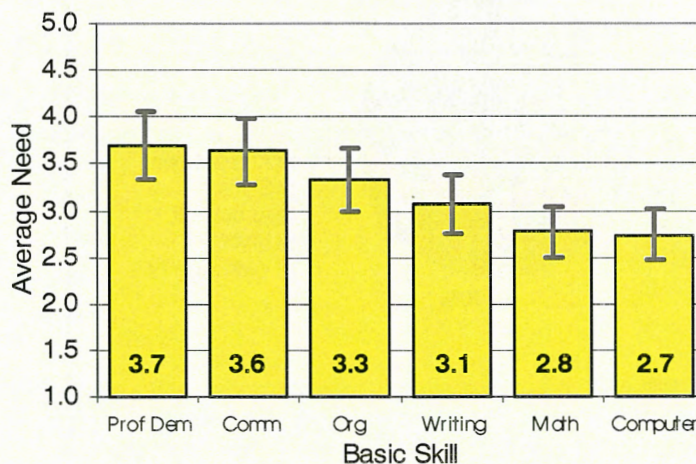
### Assessing Entry-Level Workers' Basic Skills

As the composition of jobs created by today's economy yields more service and information-based jobs, the skills needed for these positions are different from traditional manufacturing and non-information-based service jobs. The survey asked respondents six questions to assess the need for basic skills training for entry-level employees.

The region's largest establishments find that slightly more than half of all their entry-level employees need basic skills training in all of the skills identified in the survey, including math, computer skills, writing, communication, organization and professional demeanor. These skills include basic abilities that employers expect will be learned prior to employment, rather than entry-level employment training for company-specific tasks. In general, "soft" basic skills (professional demeanor, communication and organizational skills) are lacking more than basic computational and logic skills like math and computer use (Figure 6).<sup>4</sup>

Figure 7 provides a breakdown of survey responses by basic skill. Contrary to popular belief, basic computer skills are the least deficient skill set. In fact, 28% of all establishments stated that "almost none" of their entry-level staff need basic skills training in computers. Similarly, 22% indicate that "almost none" of their employees needed basic math training. While only 34% of employers indicated that either the "majority" or the "vast majority" of their entry-level employees needed basic training in math and 36% indicated a

Figure 6: Entry-Level Basic Skill Training Needs  
(Y-bars represent 90% Confidence Interval)



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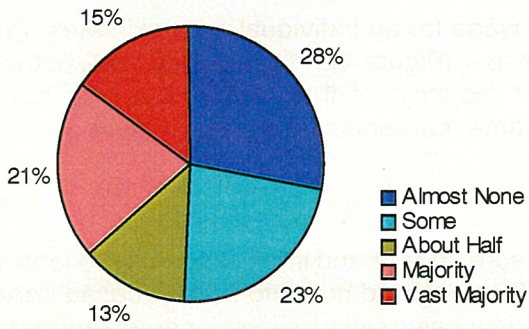
<sup>2</sup>Readers should note, however, that 15% of the responses were excluded because they used a multiple-hierarchy definition of entry-level jobs; the percentage of entry-level jobs requiring at least an Associate degree is probably much higher.

<sup>3</sup>Living wage varies based on household size and local costs. For the purposes of this survey, living wage is defined as 75% to 100% of the Lower Living Standard Income Level (LLSIL) for a family of four in the Philadelphia metropolitan area, as defined by the U.S. Employment and Training Administration in 1998 (\$20,905 to \$27,622). Note that the LLSIL for a single person household was \$14,345.

<sup>4</sup>These results are statistically significant at the 90% confidence level. Note that the Y-bars indicate the range of responses that would be expected with 90% confidence. "Average need" refers to the statistical average of the score of responses to question 3, with "almost none" equaling 1 and "vast majority" equaling 5.

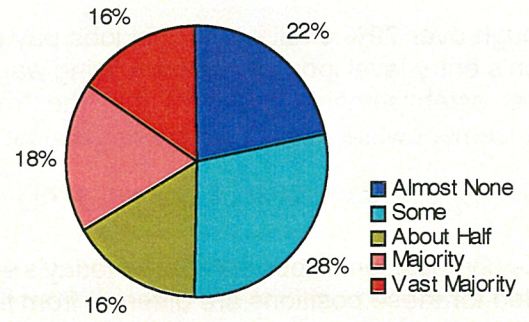
Figure 7  
Survey Responses by Basic Skill<sup>5</sup>

Need for Basic Skill Training in Computers



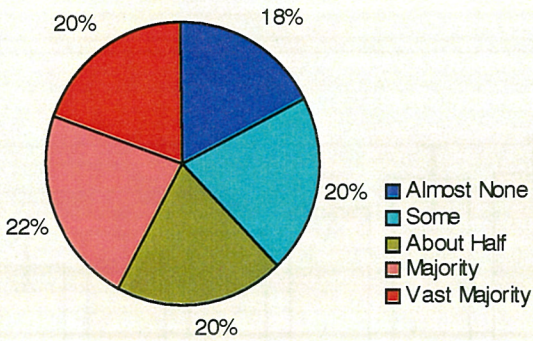
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Need for Basic Skill Training in Math



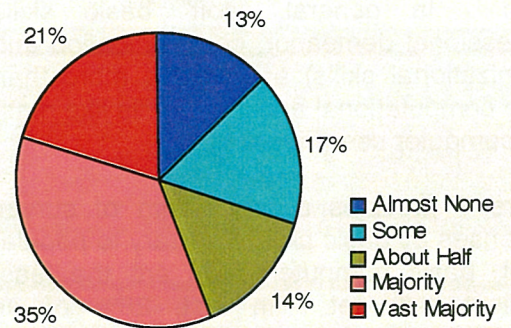
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Need for Basic Skill Training in Writing



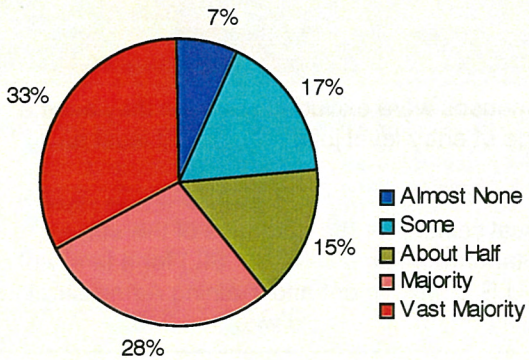
DVRPC 2001

Need for Basic Skill Training in Organization



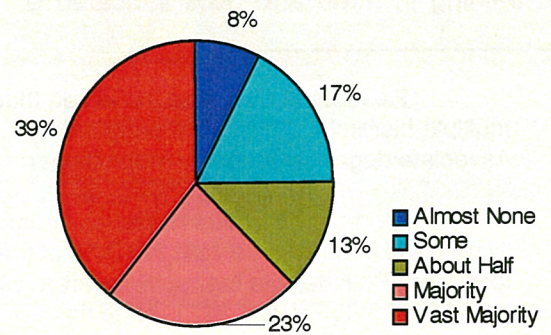
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Need for Basic Skill Training in Communication



DVRPC 2001

Need for Basic Skill Training in Professional Demeanor



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<sup>5</sup>Refer to Appendix A, survey question 3.

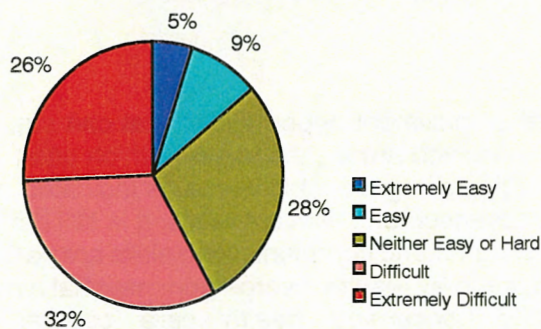
similar need for computer training, 60% of the respondents stated that the majority or vast majority needed professional demeanor training and 56% stated that most lacked basic organizational skills.

These results demonstrate how technology has made it easier to perform many computational tasks, through more powerful and abundant computers and graphical-user-interfaces (GUI). Abundant home PCs, constant software improvements and available training should make computer and math skills easier to attain in the future. The acquisition of “soft skills”, however, are not likely to become easier due to computer technology and their demand is likely to increase as more jobs involve customer service, organizing information and teamwork. Therefore, greater attention to the development of these skills seems necessary to stem this possibly increasing labor force skill deficit.

### Current and Future Entry-Level Hiring

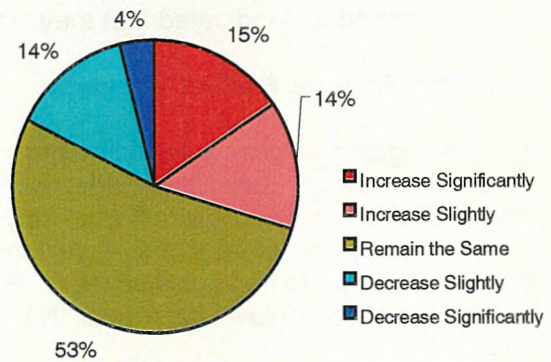
The lack of skills along with near record low unemployment have made it “difficult” or “extremely difficult” for 58% of the region’s establishments to find qualified entry-level employees (Figure 8). Of those who have had a difficult or extremely difficult time hiring, 76% believe it is due to an unqualified labor supply, 10% identify high labor costs, and only 2% believe it is because of excessive commuting distance. Although the region’s current expansion is one of the longest in history, 30% of all establishments still believe they will need to increase their entry-level hiring over the next five years (Figure 9). The majority (53%) of respondents’ report that entry-level hiring will remain about the same over the next five years and only 4% believe it will decrease significantly. Continued strong economic growth will not only increase the number of new entry-level positions but will also foster tight labor markets, which will increase turnover rates as better job opportunities grow. As expected, entry-level replacement will out pace new position hiring over the next year, as establishments hire workers to fill almost 3 replacement positions for every one new entry-level position.

Figure 8: Establishments Having Difficulty Finding Entry-Level Employees



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Figure 9: Entry-Level Hiring Over the Next 5 Years



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### Establishment Locational Choice Factors

A firm’s choice of location is based on a complex, dynamic set of factors, including real estate, labor and tax costs, corporate image, suppliers and potential market, all of which can influence the company’s competitive advantage. Since large investments, both public and private, are usually a part of any location choice, information about the factors that contribute to a corporate location choice is valuable. This survey gathers information on ten location factors to assess their relative and absolute importance in the decision making process involved in locating an establishment. Survey respondents were asked to rate the importance of each factor on a scale of 1 to 7, with 1 being “not a primary factor” and 7 being considered a “primary factor”.

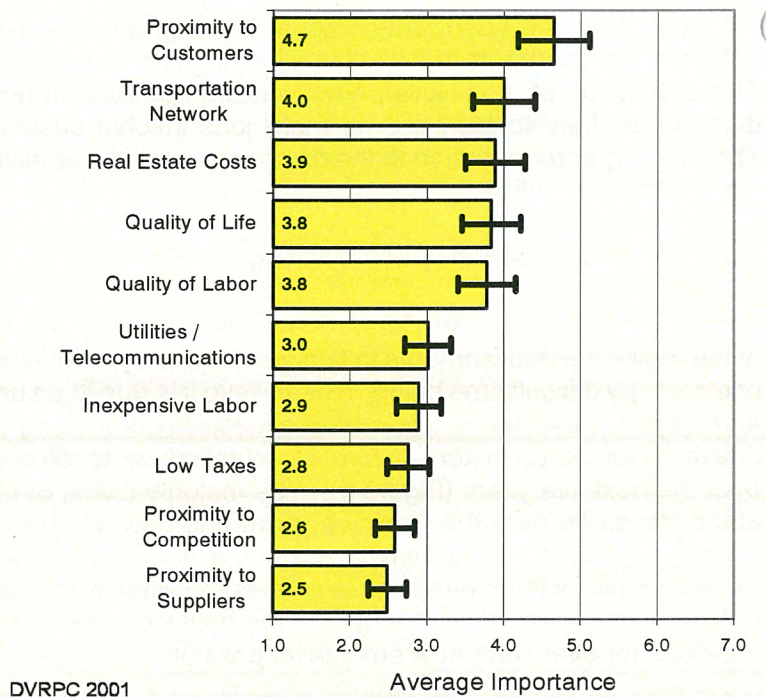
The results indicate that proximity to customers, transportation networks, real estate costs and the quality of both life and labor are more important attributes of a given location than utilities, labor costs, low taxes, and proximity to competition and suppliers (see Figure 10). Notice, however, that the intensity of each score is not very high

(a score of 4 represents the mid-point of the range of values, meaning that the factor may have some influence on the decision-making process but is not considered to be a primary factor). Proximity to customers was the only score to average above 4, which makes it a primary choice factor.

Overall, only the proximity to customers and the transportation network were considered to be primary location factors, with all of the rest of the identified factors having average ratings of less than 4. The results of this survey show that many factors weigh into a firm's decision as to where to locate their establishment. While firms can readily identify those factors that are not primary to their decision-making process, the survey results indicate that they cannot easily distinguish those factors that they consider to be primary, probably due to the complex nature of locational choice decisions and the limitations of this survey instrument.

Regardless of the locational choice factors involved or their importance, a strong majority (72%) of establishments would choose to expand in their current location (Figure 11). Among those that indicated they would expand at a different location, 79% stated they would do so within our nine county region. Only 6% of all respondents indicated that they would expand by locating outside the region.

Figure 10 Location Choice Factors (Y-bars represent 90% Confidence Interval)

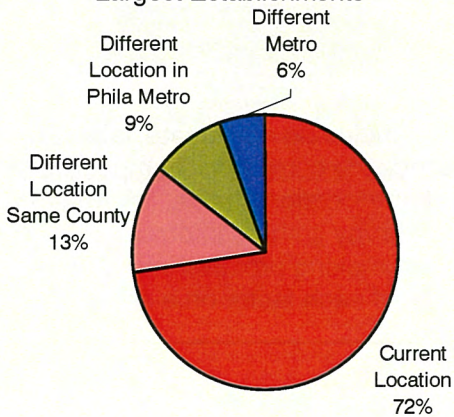


**Conclusion and Need for Further Research**

In general, the region's largest establishments offer entry-level employment opportunities that can support an individual but not a family. Low pay and few benefits are commonplace among these jobs, which often require few skills and little formal education. Fortunately, 51% of the region's largest establishments indicated that the "majority" or "vast majority" of their entry-level jobs offer career advancement. Nevertheless, it is still difficult for the majority of employers to find qualified labor. Professional demeanor and communication skills are particularly lacking in the region's entry-level labor pool. Not surprisingly, our survey results diverge from national averages,

particularly concerning health care coverage and opportunity for advancement, due to our sampling universe (only establishments with more than 99 employees). Larger establishments tend to offer more benefits, higher pay and more opportunity for advancement than their smaller counterparts.

Figure 11: Expansion Preferences of the Region's Largest Establishments



The meaning of "entry-level" continues to evolve along with today's high-tech, knowledge-based economy. Due to rapid changes in the economy, a growing number of entry-level jobs are found in non-traditional fields. These new professional service, computer and information analyst positions are best identified and described using a multiple hierarchy taxonomy. This taxonomy, for example, would classify a junior systems analyst position in a computer-consulting firm as an entry-level job, despite its relatively high skill requirements and remuneration compared to traditional entry-level jobs. While this

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classification seems inappropriate using a traditional definition of entry-level, it is rapidly becoming more relevant considering that the fastest growing job sectors require significantly higher entry-level skills than traditional non-service sector jobs. Although the survey results presented here do not provide much information about this non-traditionally defined entry-level employment, respondents indicated that the nature of entry-level work is changing in this manner. To gain a better understanding of entry-level employment in today's economy, future studies should include a multiple hierarchy definition for entry-level, in order to capture the full spectrum of entry-level employment and provide assistance in designing programs to help people find work.

**Appendix A: Entry-Level Jobs Survey Questions (with response rates; "N" equals the number of valid responses for each question)**

**Entry-Level Employee Qualifications and Costs**

1) Please provide up to three examples of what your establishment considers an *entry-level* position. *Print in the space below.*

2) What are the minimum *educational requirements* for an entry-level job at your establishment? N= 156  
 [30%] GED or less [61%] High School [2%] AA or AS [6%] BA or BS [1%] MA or MS or more

3) What percentage of your entry-level workers need the following *basic skills* training. Note: *do not include* training for company specific tasks but rather basic skills that you would expect were learned *prior to entry-level* employment.

Need Basic Skills Training in:	Almost none (less than 15%)	Some (15% to 40%)	About half (40% to 60%)	Majority (60% to 85%)	Vast majority (85%+)	Avg
Math N=154	[22%]	[28%]	[16%]	[18%]	[16%]	2.8
Computer N=150	[28%]	[23%]	[13%]	[21%]	[15%]	2.7
Writing N=153	[18%]	[20%]	[20%]	[23%]	[20%]	3.1
Communication N=154	[7%]	[17%]	[15%]	[28%]	[33%]	3.6
Organization N=150	[13%]	[17%]	[14%]	[35%]	[21%]	3.3
Professional Demeanor N=152	[8%]	[17%]	[13%]	[23%]	[40%]	3.7

4) In general, are your establishment's entry-level positions *full-time or part-time*? N=159  
 [83%] Full-time (35 or more hrs a week) [17%] Part-time (Less than 35 hours a week)

5) What is the *hourly / yearly* pay (salary) for *entry-level* positions at your establishment? N=157

[21%] Less than \$7.43 <i>per hr or</i> Less than \$15,454 <i>yearly</i>	[49%] \$7.44 to \$10.05 <i>per hr or</i> \$15,455 to \$20,904 <i>yearly</i>	[22%] \$10.06 to \$13.28 <i>per hr or</i> \$20,905 to \$27,622 <i>yearly</i>
[6%] \$13.29 to \$18.58 <i>per hr or</i> \$27,623 to \$38,646 <i>yearly</i>	[1%] Greater than \$18.58 <i>per hr or</i> Greater than \$38,647 <i>yearly</i>	

6) What type of *health benefits* does your establishment offer to its entry-level employees? N=155

[13%] Individual Coverage	[10%] Individual Coverage with Co-pay	[21%] Family Coverage
[49%] Family Coverage with Co-pay	[8%] No Health Insurance	

7) What percentage of your entry-level jobs offer *career advancement* through promotion within your establishment or company? N=158

[8%] Almost None (less than 15%)	[26%] Some (15% to 40%)	[15%] About Half (40% to 60%)
[22%] Majority (60% to 85%)	[29%] Vast Majority (85%+)	

8) On a scale of 1 to 7, with *one* representing "*extremely easy*" and *seven* "*extremely difficult*", please indicate your establishment's *experiences hiring qualified* candidates for entry-level positions. N=159

1 (1%) Extremely Easy	2 (4%)	3 (9%)	4 (28%) Neither Easy nor Hard	5 (32%)	6 (22%)	7 (4%) Extremely Difficult
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9) *Only if you circled responses 5, 6 or 7 to the last question*, please indicate why you find it difficult or extremely difficult to find qualified, entry-level workers. *Please check all that apply.* N=92

[76%] Unqualified labor supply  
 [2%] Commuting distance to your establishment too far from appropriate labor pool

[10%] High labor cost  
 [12%] Other ( *please indicate* )

**Future Entry-Level Hiring**

10) How many **entry-level** positions do you expect to fill during the **next year**? Please indicate the number filled due to additions (jobs created) and / or replacements in the spaces provided below.

Number of entry-level additions (*new positions*): **N=140** **Avg = 12.3**  
 Number of entry-level replacements (*refilling already existing positions*): **N=149** **Avg = 33.7**

11) On a scale of 1 to 7, with *one* representing "increase significantly" and *seven* "decrease significantly", please indicate the choice that best describes your establishment's **entry-level hiring** over the **next five years**. **N = 155**

1 (5%)                    2 (11%)                    3 (14%)                    4 (53%)                    5 (14%)                    6 (4%)                    7 (0%)  
 Increase Significantly                    Remain the Same                    Decrease Significantly

**Locational Choice Factors**

12) On a scale of 1 to 7, with *one* representing "not a primary location choice factor" and *seven* "primary location choice factor", please rate the **importance of the following factors** to your establishment's current location choice.

<b>Location Factor</b>	Not a Primary Location Choice Factor			Primary Location Choice Factor			
Proximity to Competition <b>N=135</b>	1 (47%)	2 (12%)	3 (8%)	4 (15%)	5 (10%)	6 (6%)	7 (3%)
Proximity to Suppliers <b>N=134</b>	1 (48%)	2 (14%)	3 (6%)	4 (14%)	5 (12%)	6 (4%)	7 (2%)
Proximity to Customers <b>N=138</b>	1 (21%)	2 (3%)	3 (4%)	4 (13%)	5 (11%)	6 (19%)	7 (30%)
Low Taxes or Abatements <b>N=133</b>	1 (40%)	2 (11%)	3 (14%)	4 (18%)	5 (8%)	6 (6%)	7 (4%)
Utilities / Telecommunications <b>N=133</b>	1 (36%)	2 (10%)	3 (11%)	4 (21%)	5 (9%)	6 (7%)	7 (6%)
Transportation Network <b>N=136</b>	1 (21%)	2 (8%)	3 (7%)	4 (18%)	5 (16%)	6 (19%)	7 (10%)
Inexpensive Labor <b>N=137</b>	1 (32%)	2 (17%)	3 (10%)	4 (23%)	5 (11%)	6 (6%)	7 (2%)
Quality of Life <b>N=136</b>	1 (18%)	2 (9%)	3 (10%)	4 (24%)	5 (18%)	6 (16%)	7 (5%)
Qualified Labor <b>N=137</b>	1 (20%)	2 (8%)	3 (10%)	4 (24%)	5 (21%)	6 (11%)	7 (7%)
Real Estate Costs <b>N=135</b>	1 (21%)	2 (7%)	3 (10%)	4 (22%)	5 (13%)	6 (17%)	7 (10%)

13) Where would you prefer to **expand** your establishment? **N=142**

[73%] Current location                    [13%] Different location, same county                    [9%] Different Location in Phila Metro Area  
 [6%] Different metropolitan area

Analytical data report #5 is the fifth in a series of bulletins designed to complement our traditional data releases. For more information on Analytical Data Reports, please visit the Delaware Valley Regional Planning Commission's website ([www.dvrpc.org](http://www.dvrpc.org)) or contact DVRPC at the telephone number below.

The Delaware Valley Regional Planning Commission was established in 1965 by interstate compact between Pennsylvania and New Jersey to plan for the orderly growth and development of the region, and to provide a variety of planning and technical assistance services responding to regional issues. DVRPC maintains a significant database for twenty-eight counties encompassing New Jersey, Delaware, Pennsylvania and Maryland. Included in the database are data profiles at the regional, county and municipal level and for other census geography as requested. DVRPC produces a diverse range of services, including demographic and economic data and projections; mapping and aerial photography; computer assisted mapping; geographic information systems; impact studies; and policy and program development.



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