SKILLS 2019

TALENT FORECAST

Survey Purpose

Support the design and implementation of regional talent attraction, retention, and development strategies that support our employers' greatest workforce needs.

Skills 2019 Talent Forecast GOALS

➢ Understand the **regional hiring demand** and **education/credential requirements** for workforce talent through 2019
➢ Understand the workforce **talent needs by industry sector**
➢ Utilize the data to assist economic and workforce partners and **employers respond to the most pressing talent** development issues
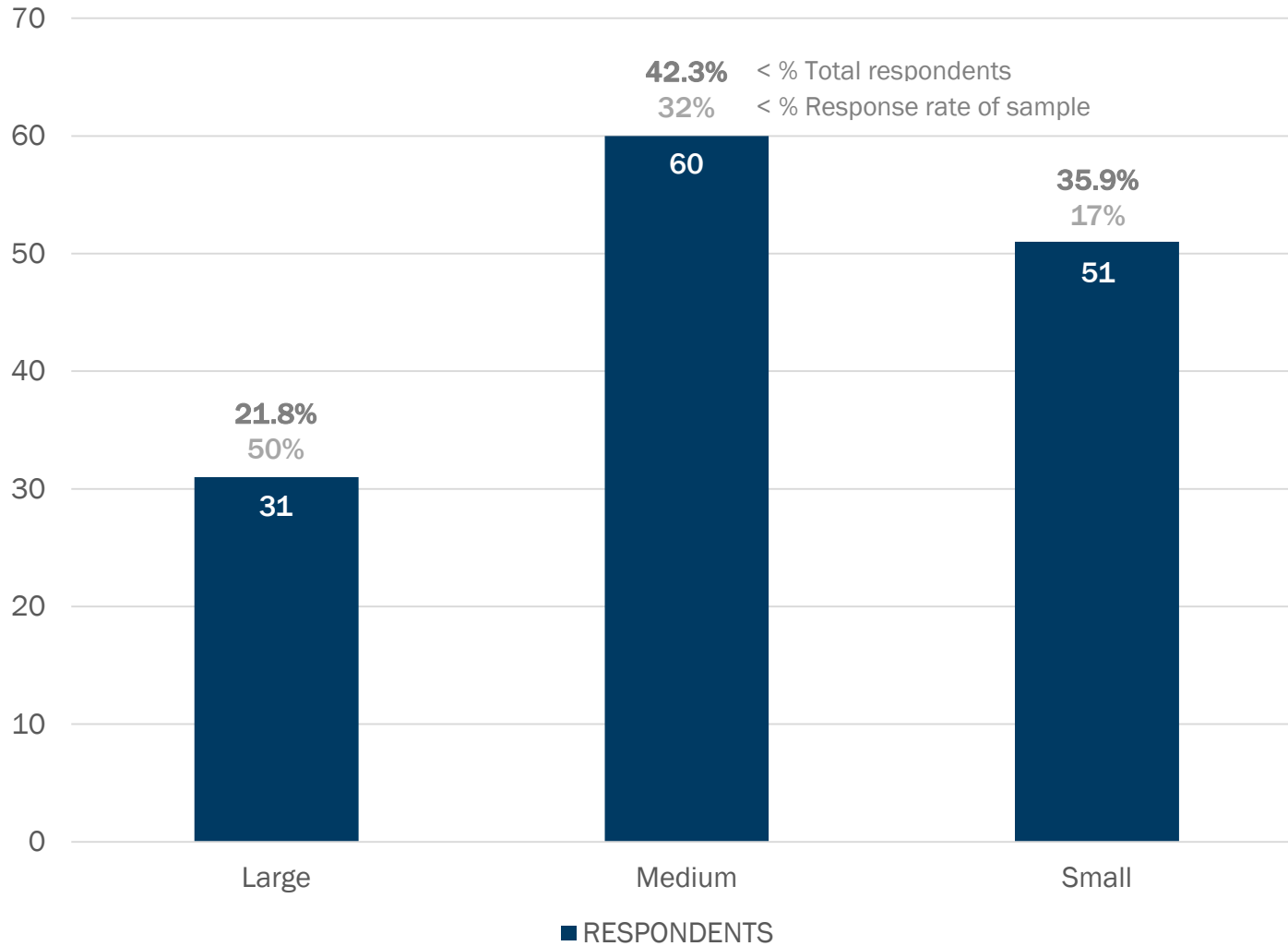
Skills 2019
TALENT
FORECAST

- 142 Employers

- 5,854 Jobs

- 3,977 Replacement Jobs

- 1,877 New Jobs

BY THE NUMBERS

Survey Respondents by Business Size

| | 42.3% | < % Total respondents |
| | 32% | < % Response rate of sample |

- **21.8%** / 50% — Large: 31
- **42.3%** / 32% — Medium: 60
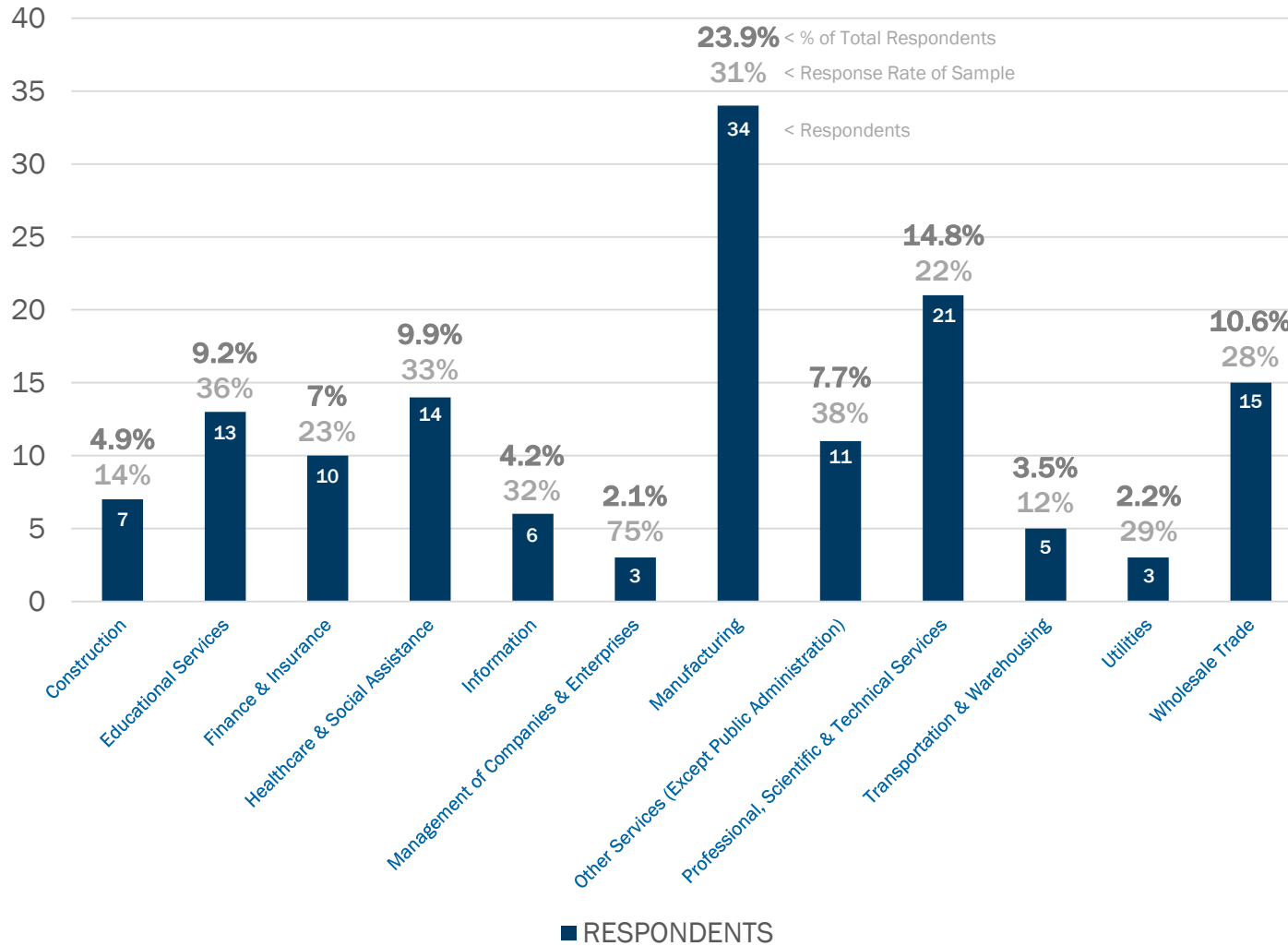- **35.9%** / 17% — Small: 51

RESPONDENTS

SURVEY RESPONDENTS

BY BUSINESS SIZE

Participation by 142 employers in the Skills 2019 Talent Forecast represents a 25 percent response rate. Thirty-one employers representing large businesses (250 employees or more) represents a 50 percent response the highest response rate by business size.

Survey Respondents by Industry Sector

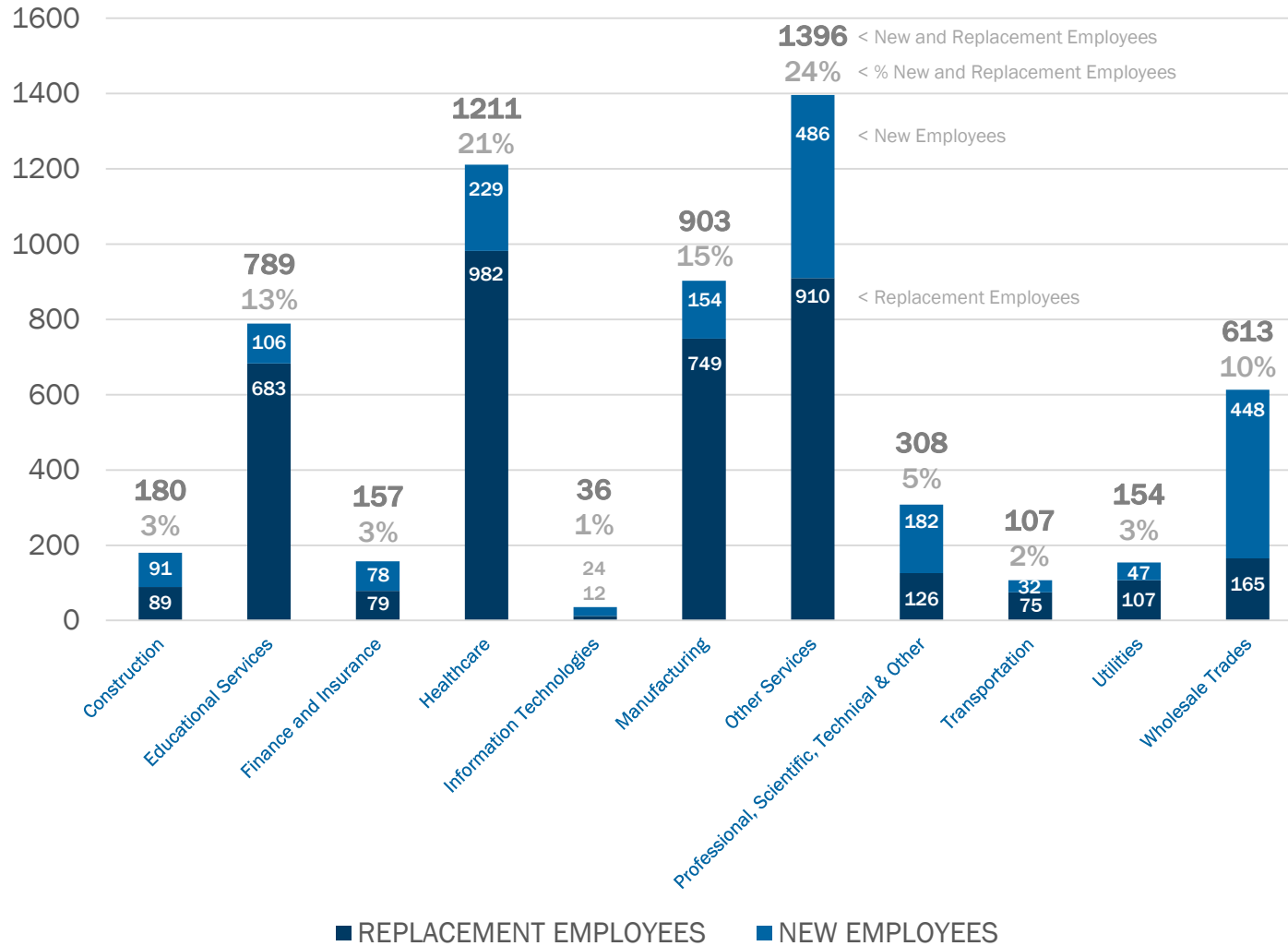| Industry Sector	% of Total Respondents	Response Rate of Sample	Respondents
Construction	4.9%	14%	7
Educational Services	9.2%	36%	13
Finance & Insurance	7%	23%	10
Healthcare & Social Assistance	9.9%	33%	14
Information	4.2%	32%	6
Management of Companies & Enterprises	2.1%	75%	3
Manufacturing	23.9%	31%	34
Other Services (Except Public Administration)	7.7%	38%	11
Professional, Scientific & Technical Services	14.8%	22%	21
Transportation & Warehousing	3.5%	12%	5
Utilities	2.2%	29%	3
Wholesale Trade	10.6%	28%	15

■ RESPONDENTS

SURVEY RESPONDENTS

BY INDUSTRY SECTOR

Purposeful sampling techniques were used to select small, medium and large employers from twelve industry clusters in the ICR Iowa region. These clusters align with the region's career clusters.

EMPLOYER WORKFORCE NEEDS: OCCUPATIONS

Employer Workforce Needs by Industry Sector

EMPLOYER WORKFORCE NEEDS

BY INDUSTRY SECTOR

Chart data (Replacement Employees / New Employees):

Industry Sector	Total	%	New Employees	Replacement Employees
Construction	180	3%	91	89
Educational Services	789	13%	106	683
Finance and Insurance	157	3%	78	79
Healthcare	1211	21%	229	982
Information Technologies	36	1%	24	12
Manufacturing	903	15%	154	749
Other Services	1396	24%	486	910
Professional, Scientific, Technical & Other	308	5%	182	126
Transportation	107	2%	32	75
Utilities	154	3%	47	107
Wholesale Trades	613	10%	448	165

Legend annotations:
- 1396 < New and Replacement Employees
- 24% < % New and Replacement Employees
- 486 < New Employees
- 910 < Replacement Employees

■ REPLACEMENT EMPLOYEES ■ NEW EMPLOYEES
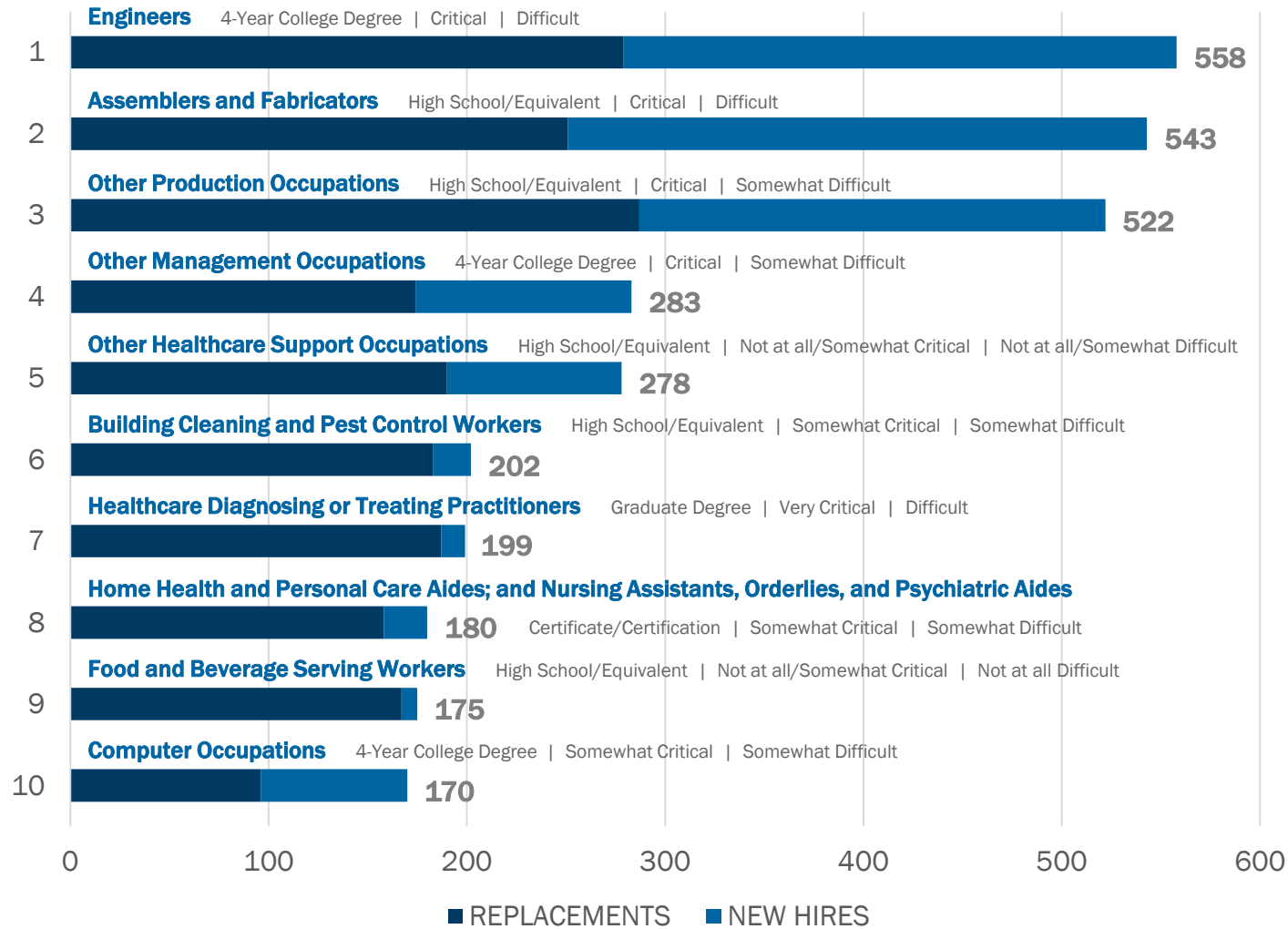
This chart summarizes anticipated job openings in each of the industry clusters through the year 2019 by anticipated replacement jobs and projected new jobs. The growth in new jobs is projected at 1,877 and total anticipated replacement jobs are projected at 3,977.

The Standard Occupational Group and Classification listing by the US Department of Labor was utilized for employers to record replacement and new position labor projections. Occupational Groups represent occupational classifications that perform common functions.

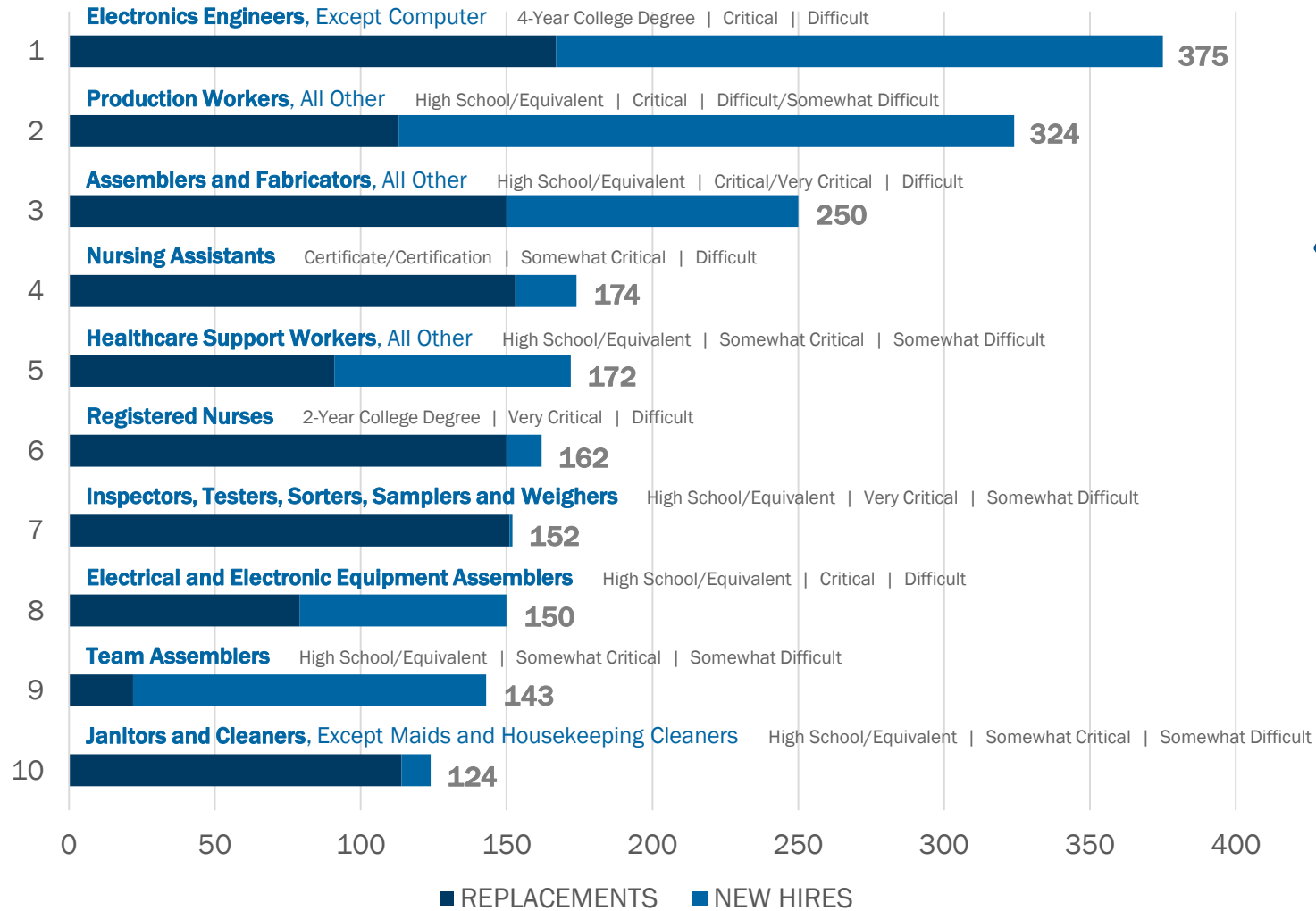## Employer Workforce Needs by Occupational Group

1 Engineers — 4-Year College Degree | Critical | Difficult — **558**

2 Assemblers and Fabricators — High School/Equivalent | Critical | Difficult — **543**

3 Other Production Occupations — High School/Equivalent | Critical | Somewhat Difficult — **522**

4 Other Management Occupations — 4-Year College Degree | Critical | Somewhat Difficult — **283**

5 Other Healthcare Support Occupations — High School/Equivalent | Not at all/Somewhat Critical | Not at all/Somewhat Difficult — **278**

6 Building Cleaning and Pest Control Workers — High School/Equivalent | Somewhat Critical | Somewhat Difficult — **202**

7 Healthcare Diagnosing or Treating Practitioners — Graduate Degree | Very Critical | Difficult — **199**

8 Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides — Certificate/Certification | Somewhat Critical | Somewhat Difficult — **180**

9 Food and Beverage Serving Workers — High School/Equivalent | Not at all/Somewhat Critical | Not at all Difficult — **175**

10 Computer Occupations — 4-Year College Degree | Somewhat Critical | Somewhat Difficult — **170**

■ REPLACEMENTS   ■ NEW HIRES

Median Required Education | Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

TOP 10 OCCUPATIONAL GROUPS

>Occupation Group
>Minimum Education
>Critical to Business
>Difficulty to Hire

Occupational classifications represent the concept of a job, defined as a set of tasks to be performed by an individual, and commonly identified by a job title. Electronics Engineers represent the largest occupational classification for new and replacement workers (55% and 45%), with a larger percentage of production workers jobs are new positions at 65 percent.

Employer Workforce Needs by Occupation Classification

1 **Electronics Engineers**, Except Computer — 4-Year College Degree | Critical | Difficult — **375**

2 **Production Workers**, All Other — High School/Equivalent | Critical | Difficult/Somewhat Difficult — **324**

3 **Assemblers and Fabricators**, All Other — High School/Equivalent | Critical/Very Critical | Difficult — **250**

4 **Nursing Assistants** — Certificate/Certification | Somewhat Critical | Difficult — **174**

5 **Healthcare Support Workers**, All Other — High School/Equivalent | Somewhat Critical | Somewhat Difficult — **172**

6 **Registered Nurses** — 2-Year College Degree | Very Critical | Difficult — **162**

7 **Inspectors, Testers, Sorters, Samplers and Weighers** — High School/Equivalent | Very Critical | Somewhat Difficult — **152**

8 **Electrical and Electronic Equipment Assemblers** — High School/Equivalent | Critical | Difficult — **150**

9 **Team Assemblers** — High School/Equivalent | Somewhat Critical | Somewhat Difficult — **143**

10 **Janitors and Cleaners**, Except Maids and Housekeeping Cleaners — High School/Equivalent | Somewhat Critical | Somewhat Difficult — **124**

0   50   100   150   200   250   300   350   400

■ REPLACEMENTS ■ NEW HIRES

TOP 10 OCCUPATIONS
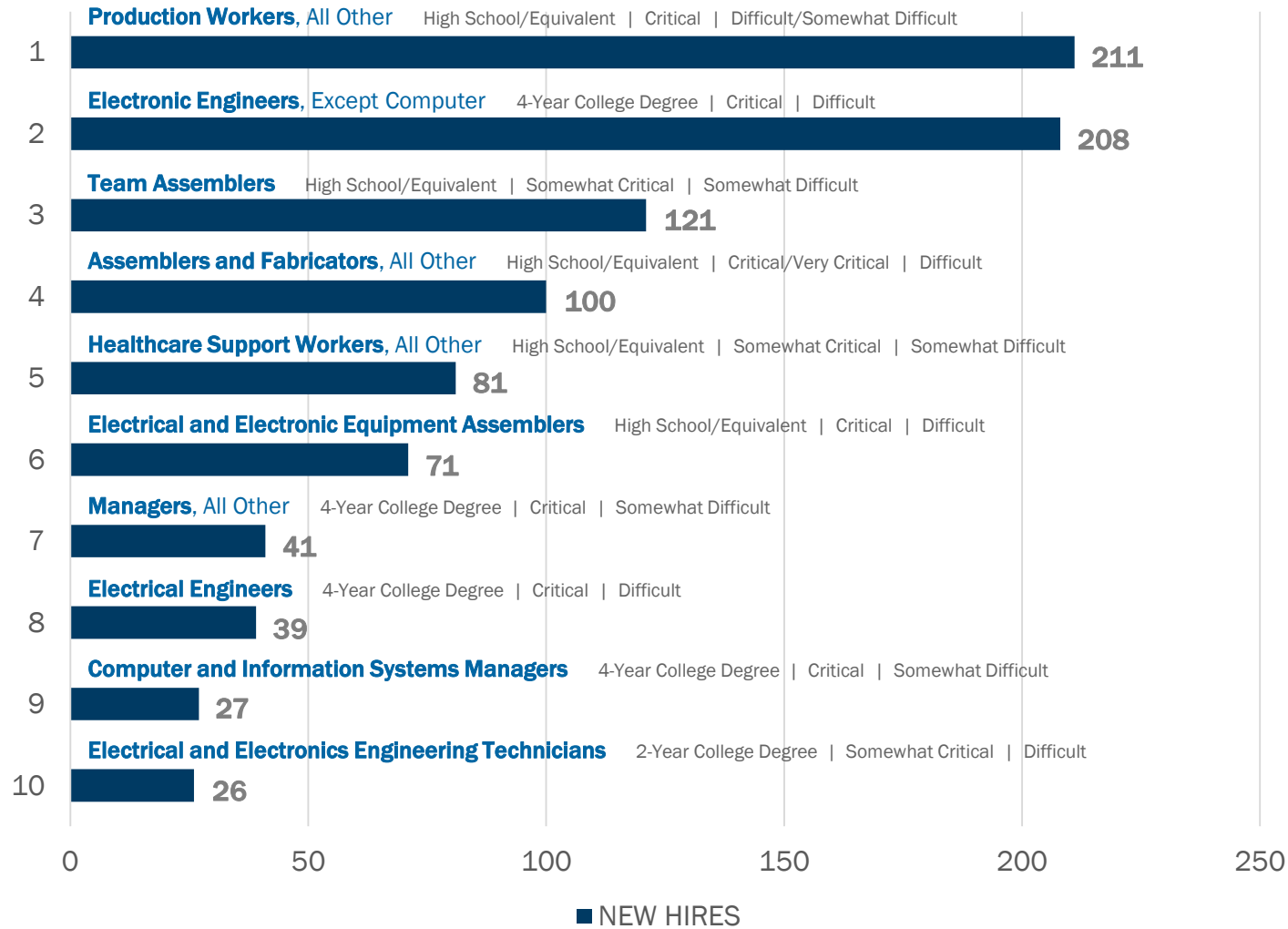
>Occupation Classification
>Minimum Education
>Critical to Business
>Difficulty to Hire

Median Required Education | Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

Eleven percent of new positions in the region will be needed in the manufacturing industry for Production Workers followed closely by Electronic Engineers. New positions are represented in the STEM industries of manufacturing, healthcare, and information technology.
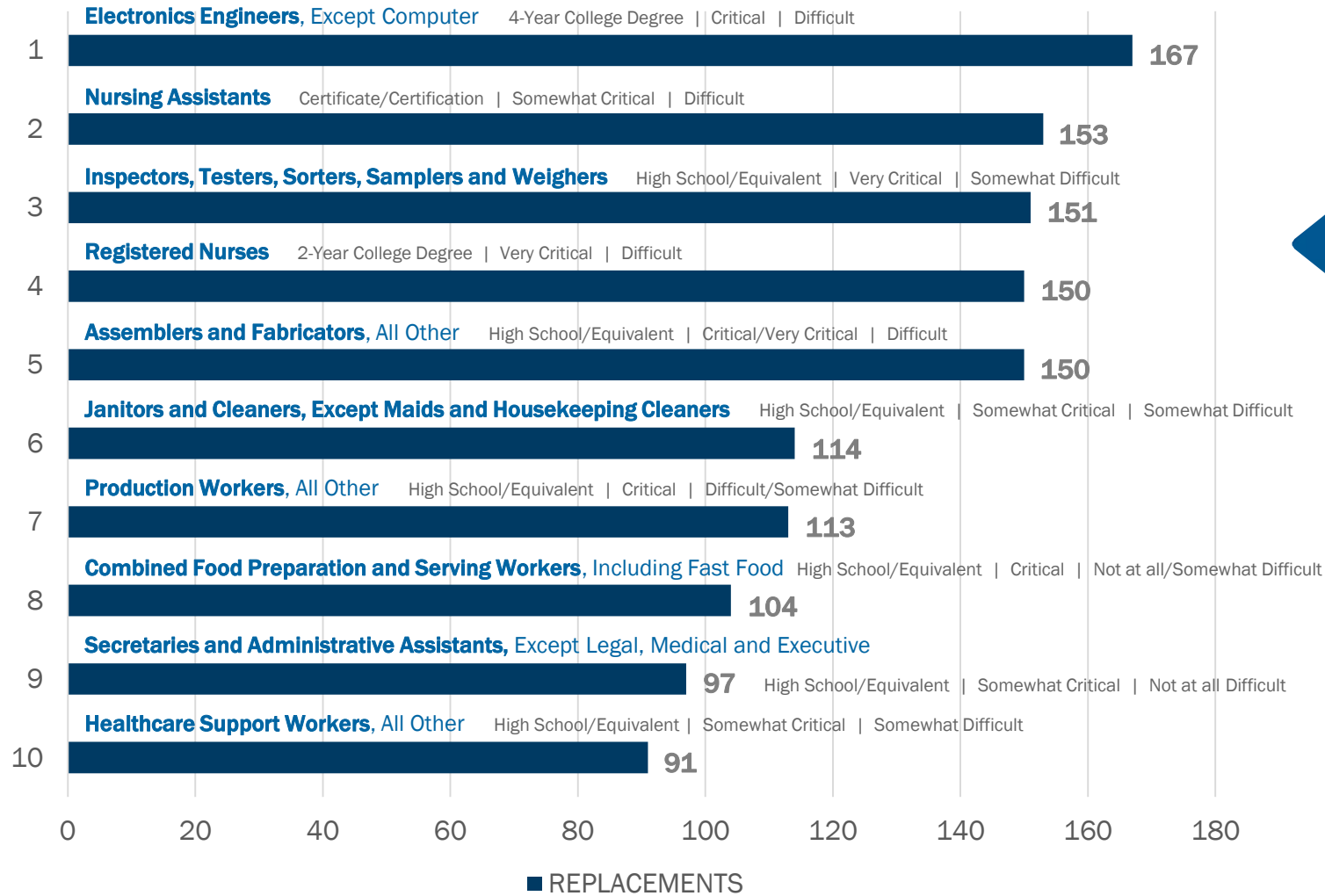
Employer Workforce Needs by Occupation Classification

Production Workers, All Other   High School/Equivalent | Critical | Difficult/Somewhat Difficult
1 ████████████████████████ **211**

Electronic Engineers, Except Computer   4-Year College Degree | Critical | Difficult
2 ███████████████████████ **208**

Team Assemblers   High School/Equivalent | Somewhat Critical | Somewhat Difficult
3 █████████████ **121**

Assemblers and Fabricators, All Other   High School/Equivalent | Critical/Very Critical | Difficult
4 ███████████ **100**

Healthcare Support Workers, All Other   High School/Equivalent | Somewhat Critical | Somewhat Difficult
5 █████████ **81**

Electrical and Electronic Equipment Assemblers   High School/Equivalent | Critical | Difficult
6 ████████ **71**

Managers, All Other   4-Year College Degree | Critical | Somewhat Difficult
7 █████ **41**

Electrical Engineers   4-Year College Degree | Critical | Difficult
8 █████ **39**

Computer and Information Systems Managers   4-Year College Degree | Critical | Somewhat Difficult
9 ███ **27**

Electrical and Electronics Engineering Technicians   2-Year College Degree | Somewhat Critical | Difficult
10 ███ **26**

0   50   100   150   200   250

■ NEW HIRES

Median Required Education | Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

TOP 10 OCCUPATIONAL CLASSES

NEW POSITIONS

For the top ten replacement occupation classifications, the top five professions represent 59.8 percent of the total replacement positions needed. These classifications represent targeted occupations that may lend themselves to apprenticeship, career pathway, or Earn and Learn education and training delivery models.

Employer Workforce Needs by Occupation Classification

Electronics Engineers, Except Computer   4-Year College Degree | Critical | Difficult
1   167

Nursing Assistants   Certificate/Certification | Somewhat Critical | Difficult
2   153

Inspectors, Testers, Sorters, Samplers and Weighers   High School/Equivalent | Very Critical | Somewhat Difficult
3   151

Registered Nurses   2-Year College Degree | Very Critical | Difficult
4   150

Assemblers and Fabricators, All Other   High School/Equivalent | Critical/Very Critical | Difficult
5   150

Janitors and Cleaners, Except Maids and Housekeeping Cleaners   High School/Equivalent | Somewhat Critical | Somewhat Difficult
6   114

Production Workers, All Other   High School/Equivalent | Critical | Difficult/Somewhat Difficult
7   113

Combined Food Preparation and Serving Workers, Including Fast Food   High School/Equivalent | Critical | Not at all/Somewhat Difficult
8   104

Secretaries and Administrative Assistants, Except Legal, Medical and Executive
9   97   High School/Equivalent | Somewhat Critical | Not at all Difficult

Healthcare Support Workers, All Other   High School/Equivalent | Somewhat Critical | Somewhat Difficult
10   91

0   20   40   60   80   100   120   140   160   180

■ REPLACEMENTS

TOP 10 OCCUPATIONAL CLASSES

REPLACEMENT POSITIONS

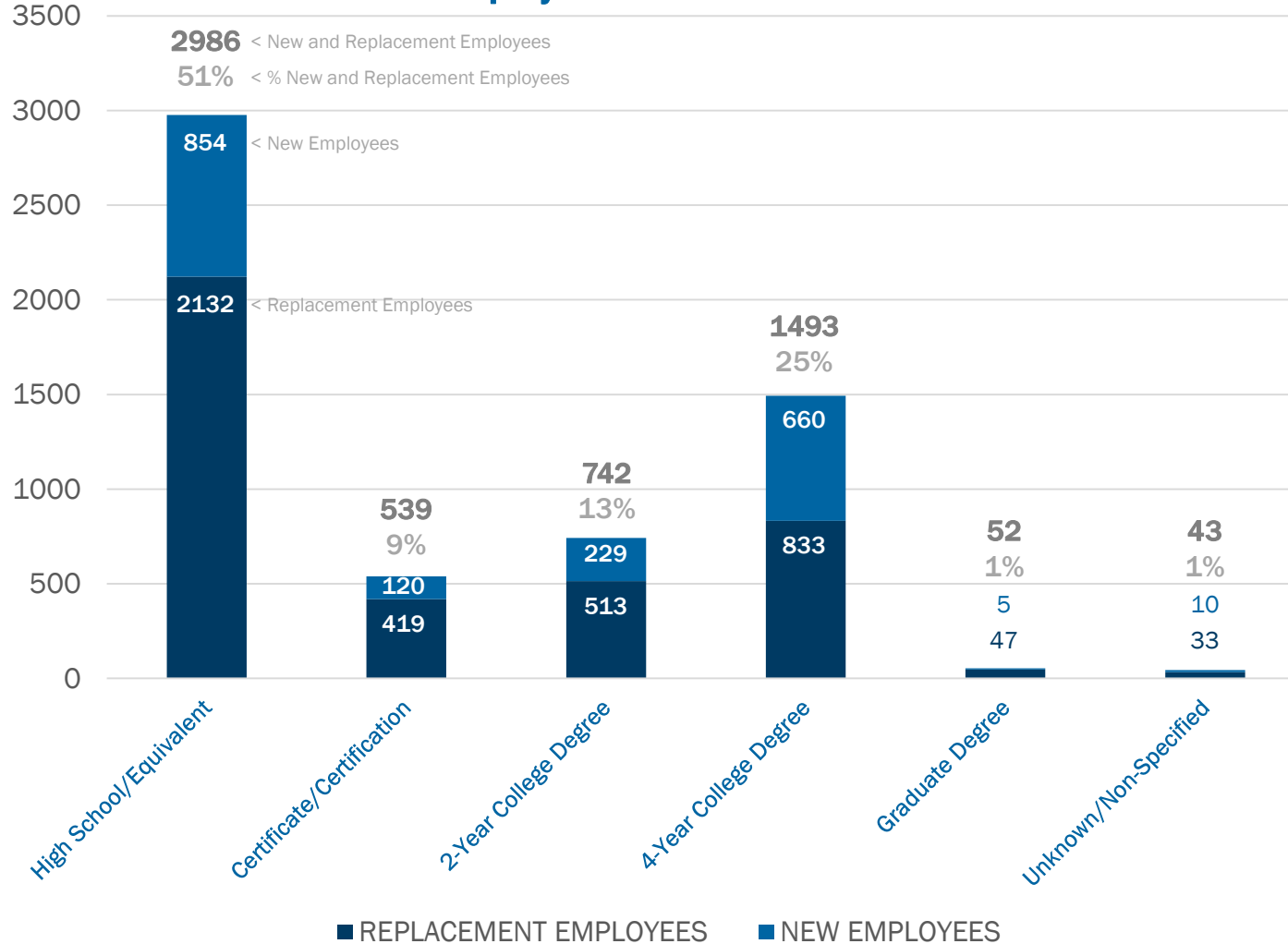Median Required Education | Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

EMPLOYER WORKFORCE NEEDS: EDUCATION

Employers were asked to provide the educational requirements for replacement and new positions. Forty-nine percent of all projected positions will require education beyond a high school diploma. Forty-six percent of replacement jobs and 55 percent of new jobs require education beyond a high school diploma.
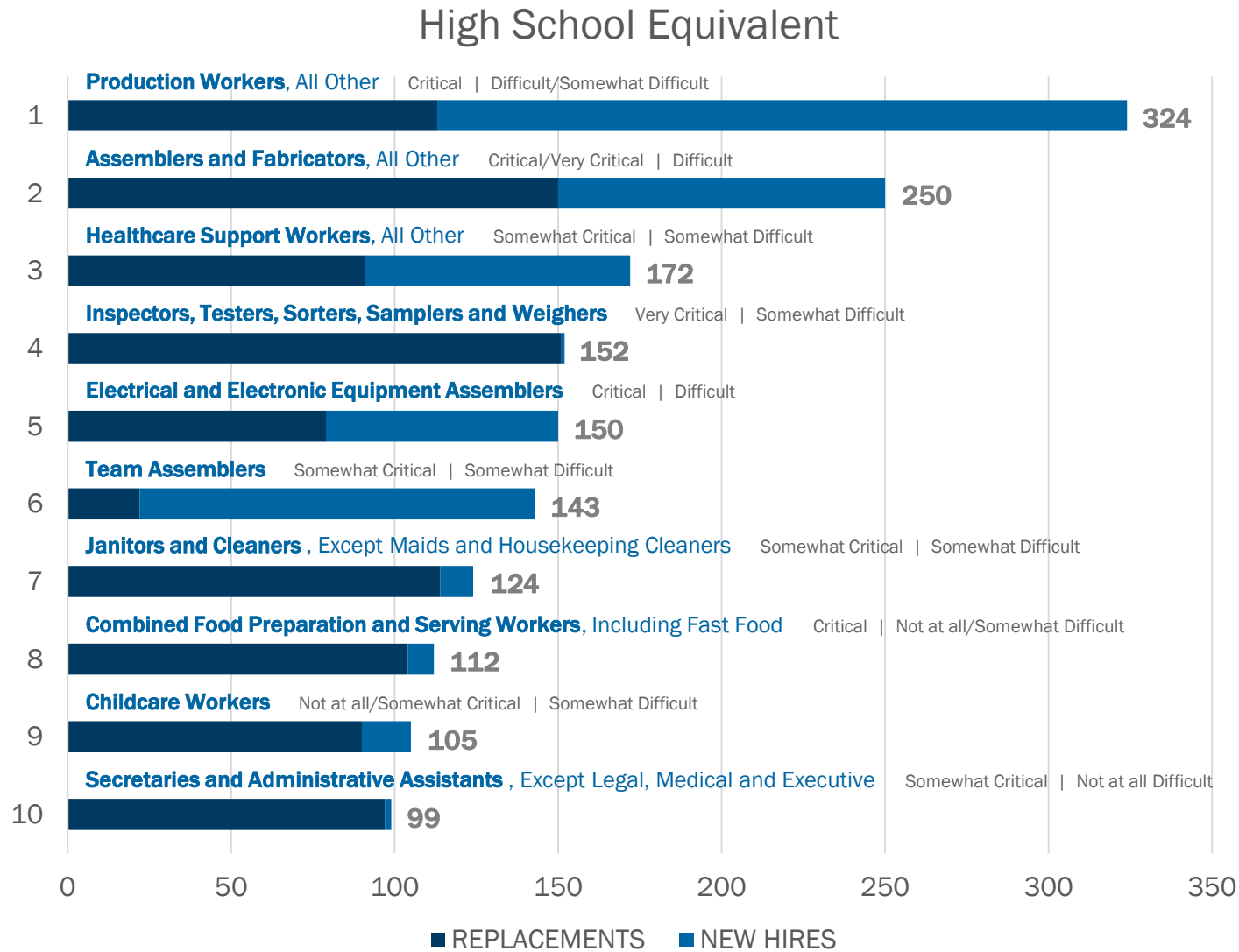
Employer Workforce Needs

	Value	Label
High School/Equivalent	**2986**	< New and Replacement Employees
	51%	< % New and Replacement Employees
	854	< New Employees
	2132	< Replacement Employees
4-Year College Degree	**1493** / 25%	660 / 833
2-Year College Degree	**742** / 13%	229 / 513
Certificate/Certification	**539** / 9%	120 / 419
Graduate Degree	**52** / 1%	5 / 47
Unknown/Non-Specified	**43** / 1%	10 / 33

■ REPLACEMENT EMPLOYEES   ■ NEW EMPLOYEES

EMPLOYER WORKFORCE NEEDS

BY EDUCATION LEVEL

The Skills 2019 Talent Forecast presents a trend for new job growth and replacement positions that require a high school diploma or equivalent. Skills 2019 reports that 51 percent of all projected positions require a high school Diploma or equivalent while the Skills 2014 study reported that 34 percent required a High School diploma. This increased trend for high school minimum education requirements may be a reflection of the current low unemployment rate (2.7%) and the increasingly tight skilled labor market.

For the Top 10 occupations requiring a high school equivalent, 60 percent of the new and replacement positions support the region's manufacturing sector.
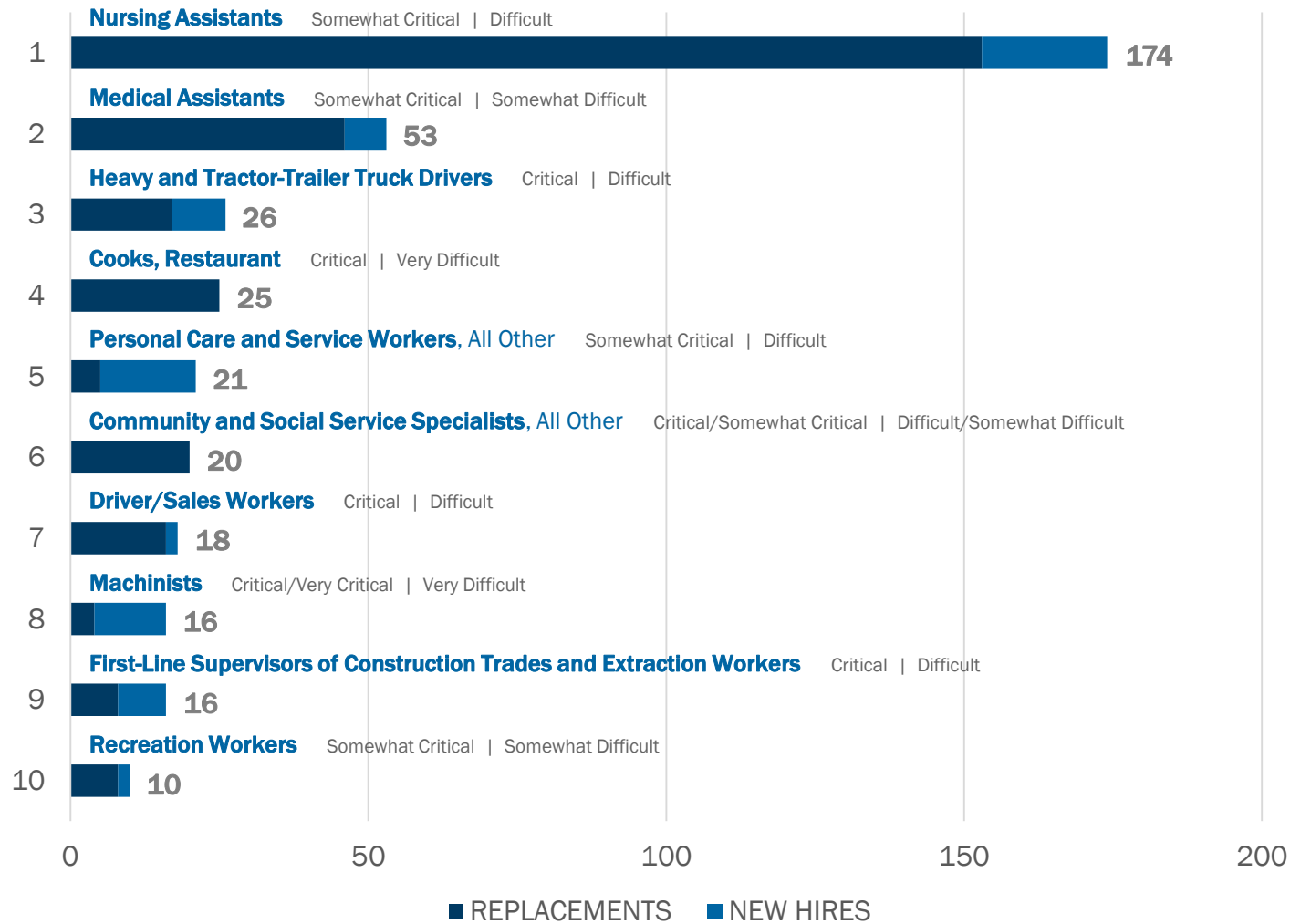
High School Equivalent

Production Workers, All Other | Critical | Difficult/Somewhat Difficult
1. — 324

Assemblers and Fabricators, All Other | Critical/Very Critical | Difficult
2. — 250

Healthcare Support Workers, All Other | Somewhat Critical | Somewhat Difficult
3. — 172

Inspectors, Testers, Sorters, Samplers and Weighers | Very Critical | Somewhat Difficult
4. — 152

Electrical and Electronic Equipment Assemblers | Critical | Difficult
5. — 150

Team Assemblers | Somewhat Critical | Somewhat Difficult
6. — 143

Janitors and Cleaners, Except Maids and Housekeeping Cleaners | Somewhat Critical | Somewhat Difficult
7. — 124

Combined Food Preparation and Serving Workers, Including Fast Food | Critical | Not at all/Somewhat Difficult
8. — 112

Childcare Workers | Not at all/Somewhat Critical | Somewhat Difficult
9. — 105

Secretaries and Administrative Assistants, Except Legal, Medical and Executive | Somewhat Critical | Not at all Difficult
10. — 99

0   50   100   150   200   250   300   350

■ REPLACEMENTS   ■ NEW HIRES

TOP 10 OCCUPATIONS

HIGH SCHOOL EQUIVALENT

CRITICAL TO BUSINESS DIFFICULT TO HIRE

Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.
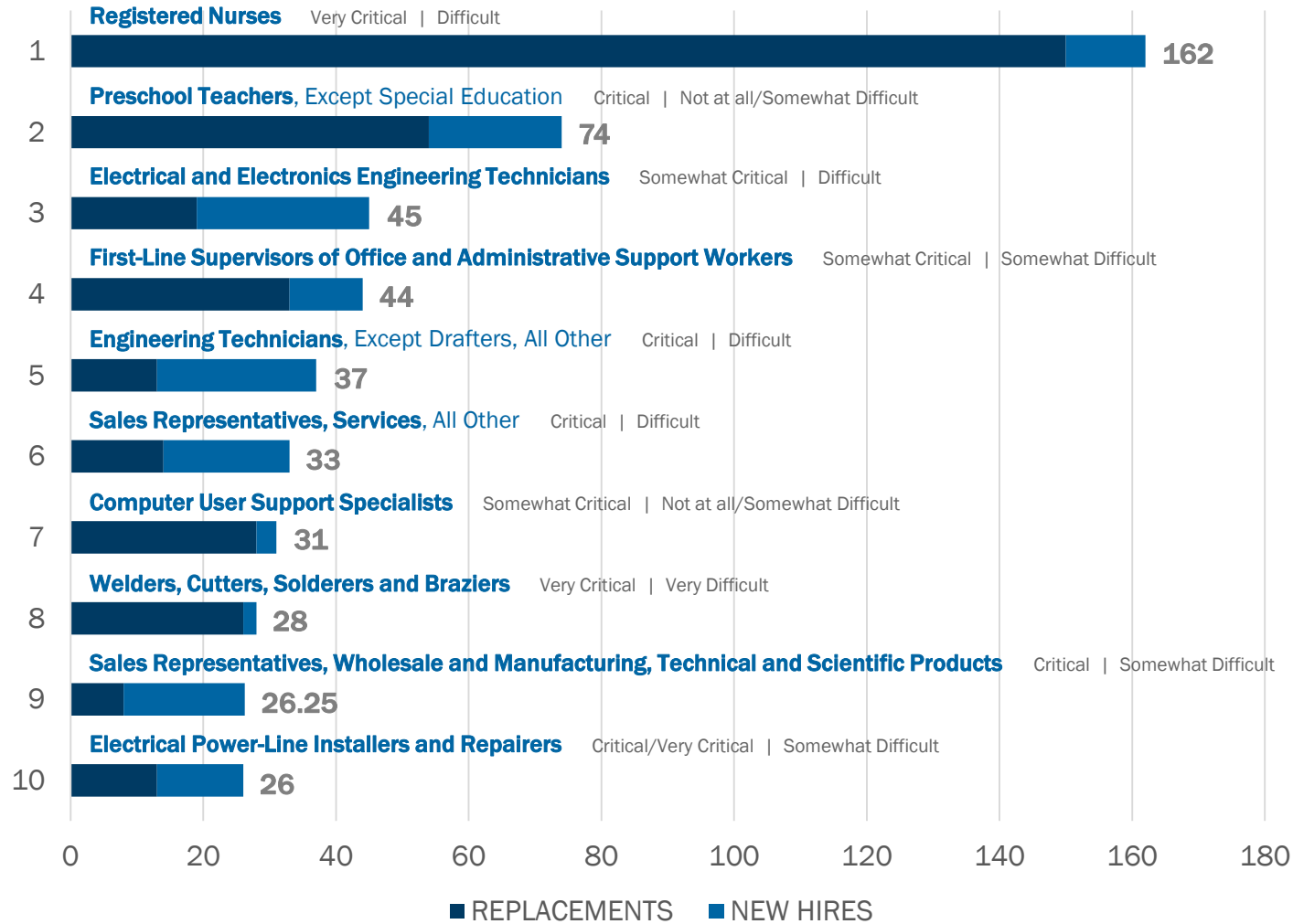
For the Top 10 occupations requiring post-secondary education beyond a high school degree at the certificate or industry credential level Healthcare occupations compose the majority of new and replacement positions.

Certificate

Nursing Assistants Somewhat Critical | Difficult
1 — **174**

Medical Assistants Somewhat Critical | Somewhat Difficult
2 — **53**

Heavy and Tractor-Trailer Truck Drivers Critical | Difficult
3 — **26**

Cooks, Restaurant Critical | Very Difficult
4 — **25**

Personal Care and Service Workers, All Other Somewhat Critical | Difficult
5 — **21**

Community and Social Service Specialists, All Other Critical/Somewhat Critical | Difficult/Somewhat Difficult
6 — **20**

Driver/Sales Workers Critical | Difficult
7 — **18**

Machinists Critical/Very Critical | Very Difficult
8 — **16**

First-Line Supervisors of Construction Trades and Extraction Workers Critical | Difficult
9 — **16**

Recreation Workers Somewhat Critical | Somewhat Difficult
10 — **10**

0   50   100   150   200

■ REPLACEMENTS ■ NEW HIRES

TOP 10 OCCUPATIONS

CERTIFICATE/ CREDENTIAL

CRITICAL TO BUSINESS DIFFICULT TO HIRE

Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

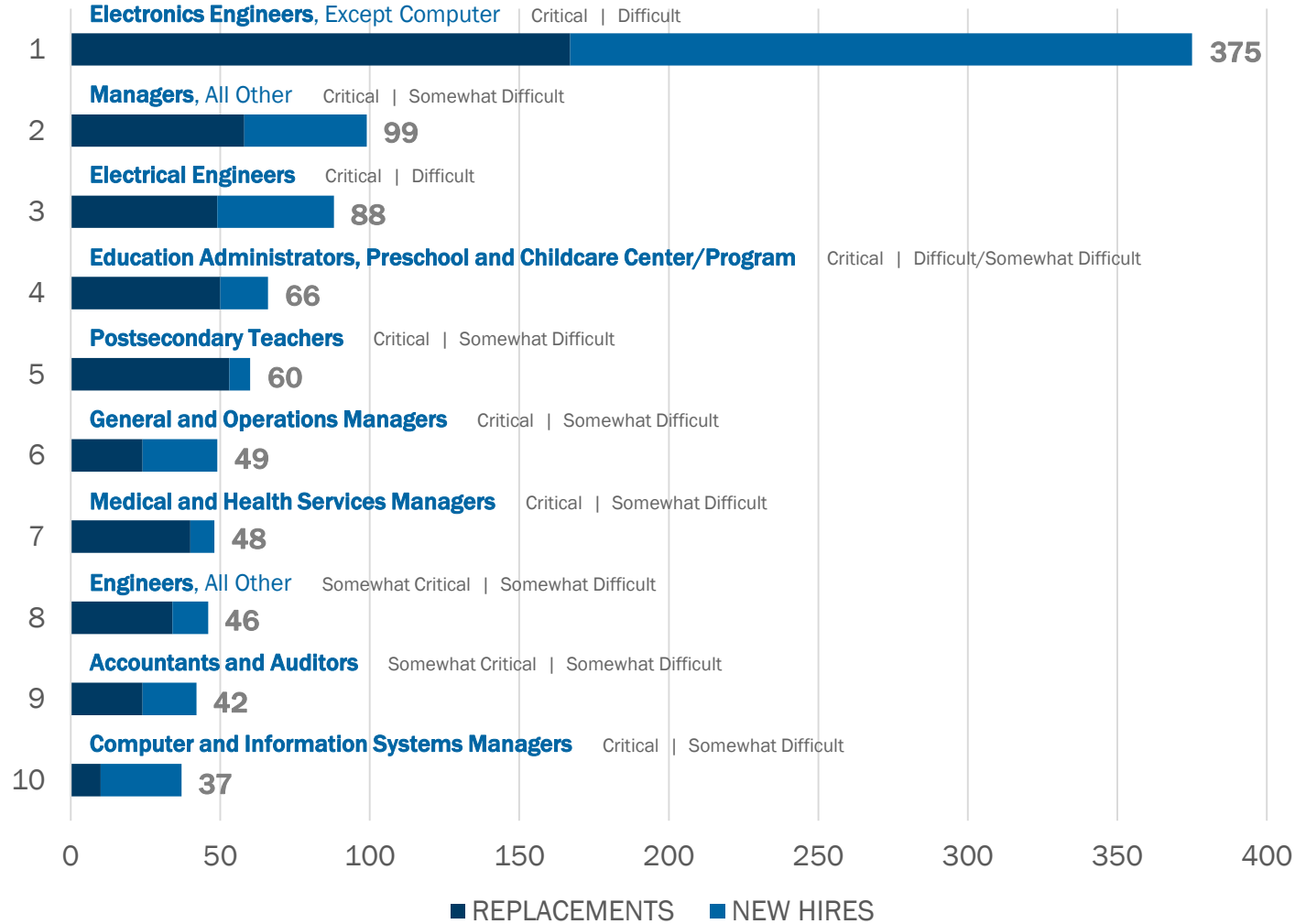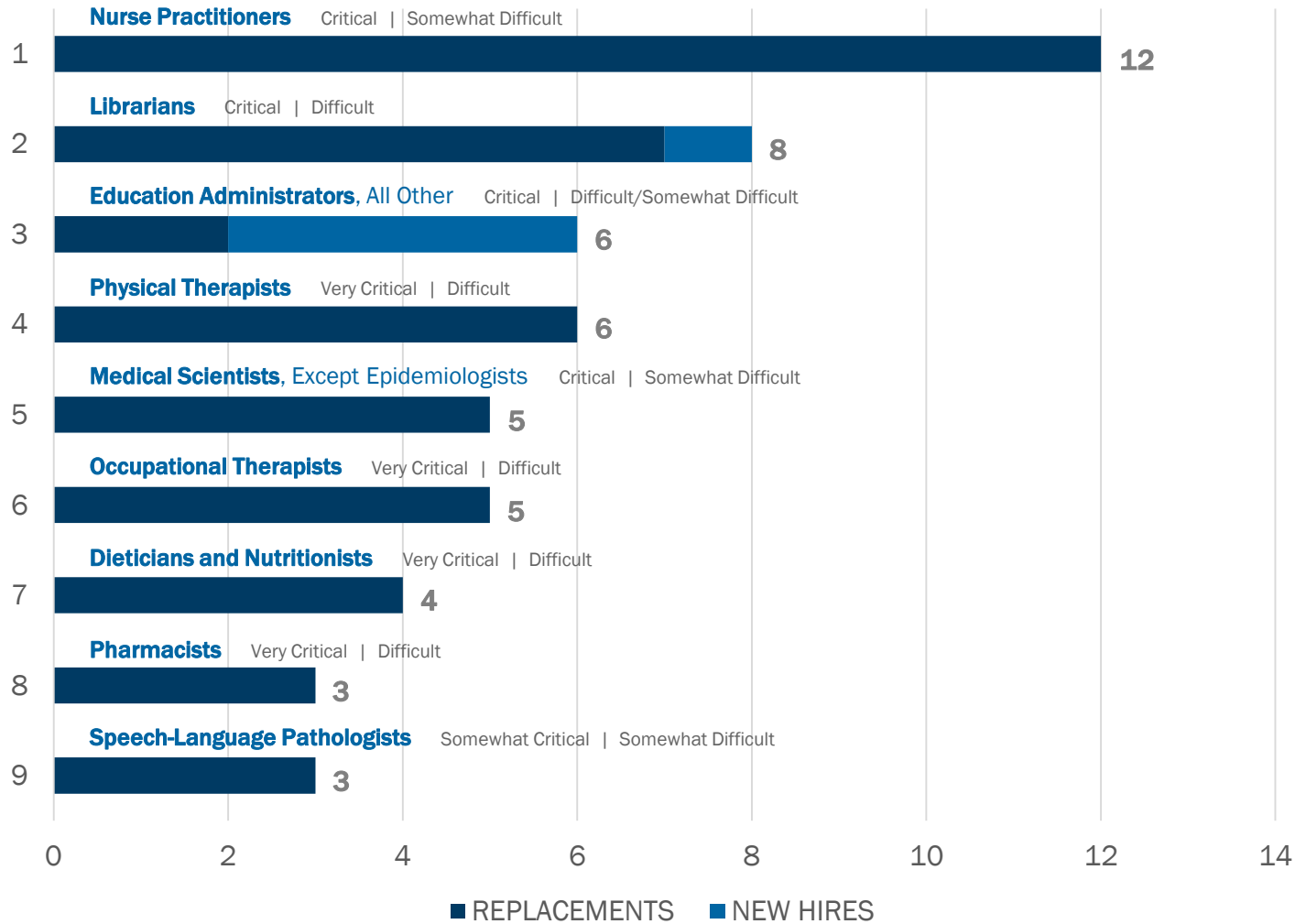For projected occupations that require a 2-year Associates Degree, 50 percent of the positions are difficult to very difficult to hire at the current time.

2-Year College Degree

Registered Nurses   Very Critical | Difficult
1 — 162

Preschool Teachers, Except Special Education   Critical | Not at all/Somewhat Difficult
2 — 74

Electrical and Electronics Engineering Technicians   Somewhat Critical | Difficult
3 — 45

First-Line Supervisors of Office and Administrative Support Workers   Somewhat Critical | Somewhat Difficult
4 — 44

Engineering Technicians, Except Drafters, All Other   Critical | Difficult
5 — 37

Sales Representatives, Services, All Other   Critical | Difficult
6 — 33

Computer User Support Specialists   Somewhat Critical | Not at all/Somewhat Difficult
7 — 31

Welders, Cutters, Solderers and Braziers   Very Critical | Very Difficult
8 — 28

Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products   Critical | Somewhat Difficult
9 — 26.25

Electrical Power-Line Installers and Repairers   Critical/Very Critical | Somewhat Difficult
10 — 26

0   20   40   60   80   100   120   140   160   180

■ REPLACEMENTS   ■ NEW HIRES

TOP 10 OCCUPATIONS

2-YEAR COLLEGE DEGREE

CRITICAL TO BUSINESS DIFFICULT TO HIRE

Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.
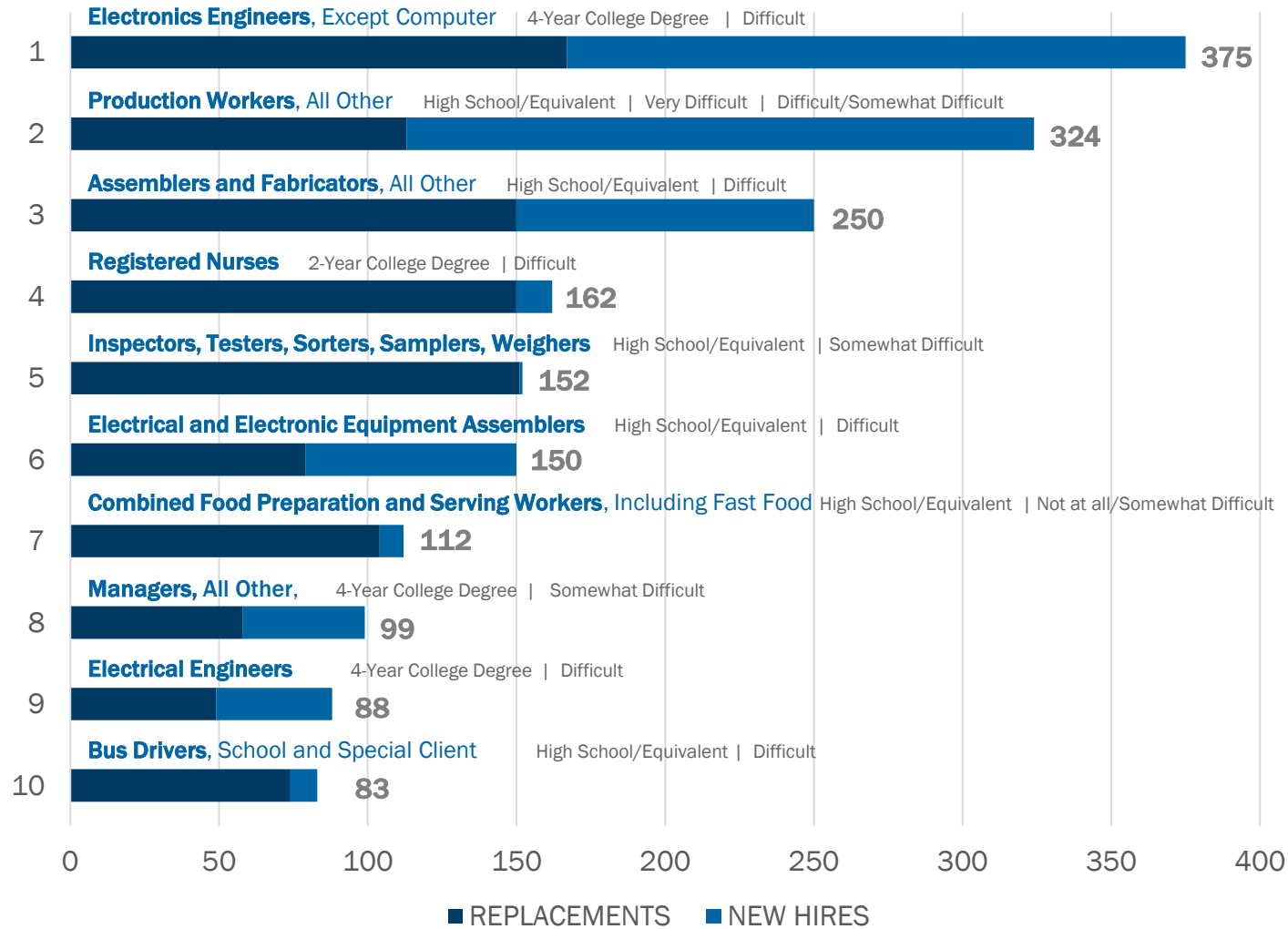
For projected occupations that require a Bachelors Degree, 20 percent of the positions are difficult to hire at the current time.

4-Year College Degree

Rank	Occupation	Critical	Difficulty	Value
1	**Electronics Engineers**, Except Computer	Critical	Difficult	375
2	**Managers**, All Other	Critical	Somewhat Difficult	99
3	**Electrical Engineers**	Critical	Difficult	88
4	**Education Administrators, Preschool and Childcare Center/Program**	Critical	Difficult/Somewhat Difficult	66
5	**Postsecondary Teachers**	Critical	Somewhat Difficult	60
6	**General and Operations Managers**	Critical	Somewhat Difficult	49
7	**Medical and Health Services Managers**	Critical	Somewhat Difficult	48
8	**Engineers**, All Other	Somewhat Critical	Somewhat Difficult	46
9	**Accountants and Auditors**	Somewhat Critical	Somewhat Difficult	42
10	**Computer and Information Systems Managers**	Critical	Somewhat Difficult	37

■ REPLACEMENTS   ■ NEW HIRES

TOP 10 OCCUPATIONS

4-YEAR COLLEGE DEGREE

CRITICAL TO BUSINESS DIFFICULT TO HIRE

Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

Graduate Degree

#	Occupation	Criticalness | Difficulty
1	**Nurse Practitioners**	Critical | Somewhat Difficult — 12
2	**Librarians**	Critical | Difficult — 8
3	**Education Administrators**, All Other	Critical | Difficult/Somewhat Difficult — 6
4	**Physical Therapists**	Very Critical | Difficult — 6
5	**Medical Scientists**, Except Epidemiologists	Critical | Somewhat Difficult — 5
6	**Occupational Therapists**	Very Critical | Difficult — 5
7	**Dieticians and Nutritionists**	Very Critical | Difficult — 4
8	**Pharmacists**	Very Critical | Difficult — 3
9	**Speech-Language Pathologists**	Somewhat Critical | Somewhat Difficult — 3

■ REPLACEMENTS   ■ NEW HIRES

TOP OCCUPATIONS

GRADUATE DEGREE

CRITICAL TO BUSINESS DIFFICULT TO HIRE

Median Criticalness | Median Difficulty
Median was calculated from previous list of medians, so measure technically represents the median of the median.

SKILLS 2019 TALENT FORECAST – HIRING CHARACTERISTICS

Employers were asked to rate the criticality of the occupation to their business productivity and growth. These are the Top 10 occupations employers rated as most critical to their operations.

Employer Workforce Needs by Occupation Classification

Electronics Engineers, Except Computer | 4-Year College Degree | Difficult
1 — 375

Production Workers, All Other | High School/Equivalent | Very Difficult | Difficult/Somewhat Difficult
2 — 324

Assemblers and Fabricators, All Other | High School/Equivalent | Difficult
3 — 250

Registered Nurses | 2-Year College Degree | Difficult
4 — 162

Inspectors, Testers, Sorters, Samplers, Weighers | High School/Equivalent | Somewhat Difficult
5 — 152

Electrical and Electronic Equipment Assemblers | High School/Equivalent | Difficult
6 — 150

Combined Food Preparation and Serving Workers, Including Fast Food | High School/Equivalent | Not at all/Somewhat Difficult
7 — 112

Managers, All Other, | 4-Year College Degree | Somewhat Difficult
8 — 99

Electrical Engineers | 4-Year College Degree | Difficult
9 — 88

Bus Drivers, School and Special Client | High School/Equivalent | Difficult
10 — 83

0   50   100   150   200   250   300   350   400

■ REPLACEMENTS   ■ NEW HIRES

Median Required Education | Difficulty to Hire

TOP 10 OCCUPATIONS

MOST CRITICAL TO EMPLOYERS

Employers were asked to rate the difficulty in finding talent to fill available positions for their business. These are the Top 10 occupations employers rated as most difficult to fill open positions. Forty percent of the top 10 occupations are both rated as highly critical to operations and very difficult to fill open positions.

Employer Workforce Needs by Occupation Classification

#	Occupation	Education | Criticalness	Value
1	**Electronics Engineers**, Except Computer	4-Year College Degree | Critical	375
2	**Assemblers and Fabricators, All Other**	High School/Equivalent | Critical / Very Critical	250
3	**Registered Nurses**	2-year College Degree | Very Critical	162
4	**Electrical and Electronic Assemblers**	High School/Equivalent | Critical	150
5	**Electrical Engineers**	4-year College Degree | Critical	88
6	**Bus Driver, School or Special Client**	High School/Equivalent | Critical	83
7	**Metal Workers and Plastic Workers, All Other**	High School/Equivalent | Very Critical	70
8	**Electrical and Electrical Engineering Technicians**	2-Year College Degree | Somewhat Critical	47
9	**Sales Representatives, Services, All Other**	2-Year College Degree | Critical	33
10	**Software Developers**, Systems Software	4-Year College Degree | Somewhat Critical	29

■ REPLACEMENTS   ■ NEW HIRES

Minimum Education Level | Criticalness

TOP 10 OCCUPATIONS

MOST DIFFICULT TO HIRE FOR EMPLOYERS

Four difficult to fill and critical to hire: Electronics Engineers, Assemblers and Fabricators, Electrical and Electronic Assemblers, Electrical Engineers

SKILLS 2019 TALENT FORECAST – HIRING PATTERNS
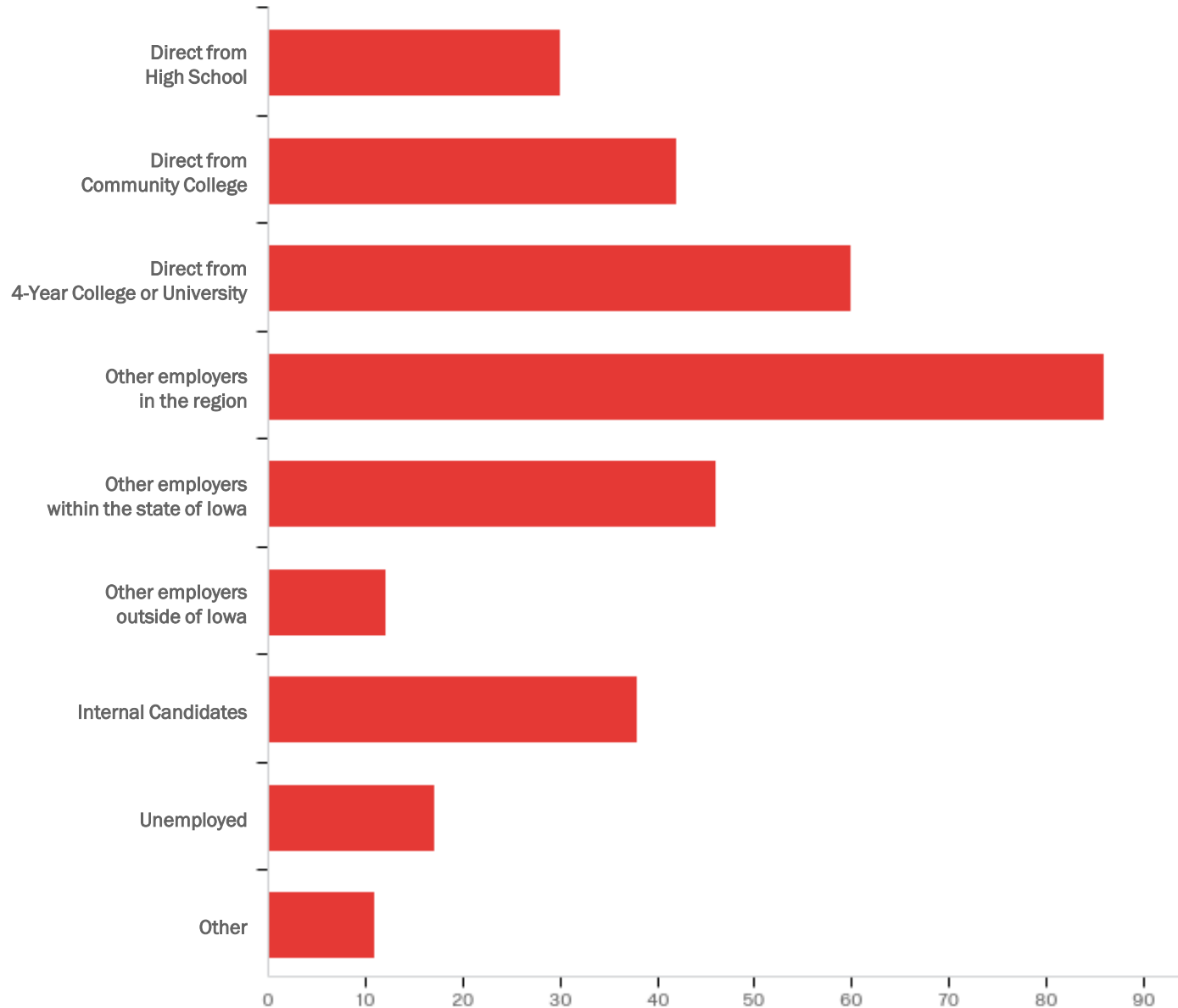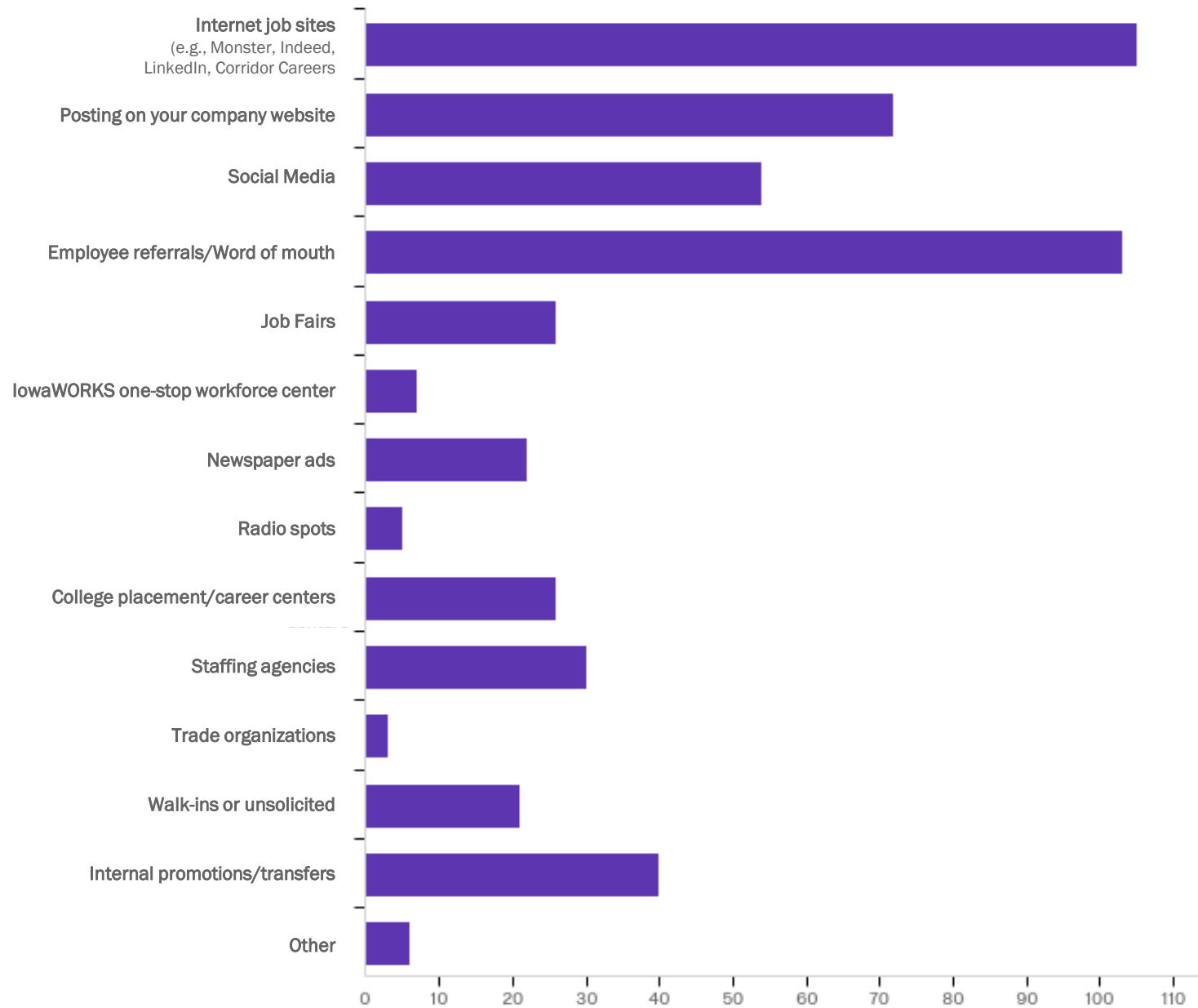
Over the last two years, which of the following methods have been effective in identifying job candidates for your organization?
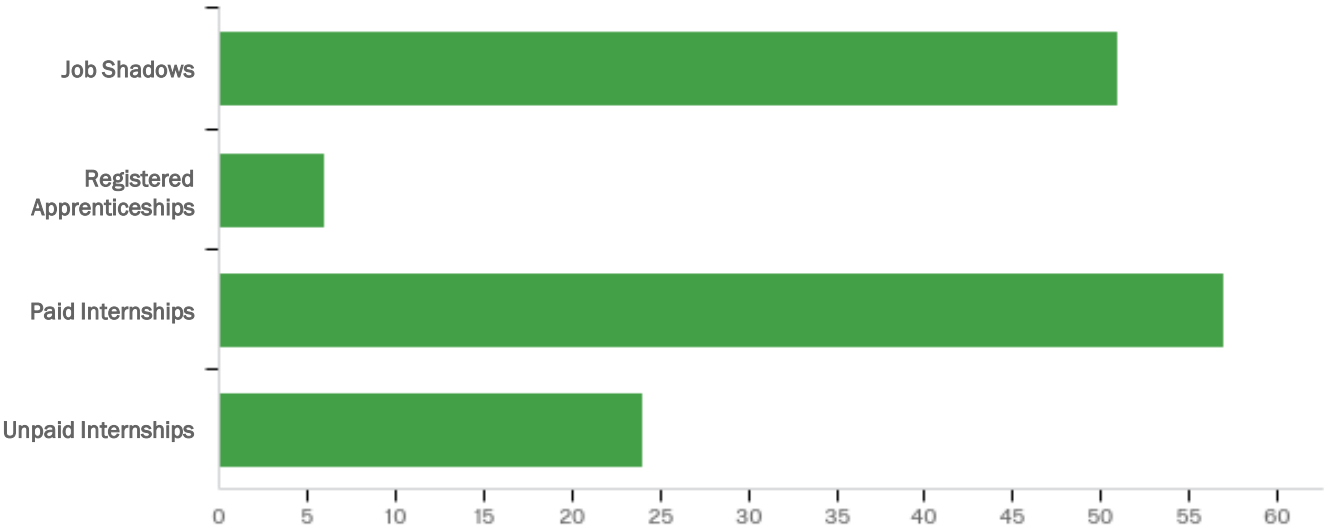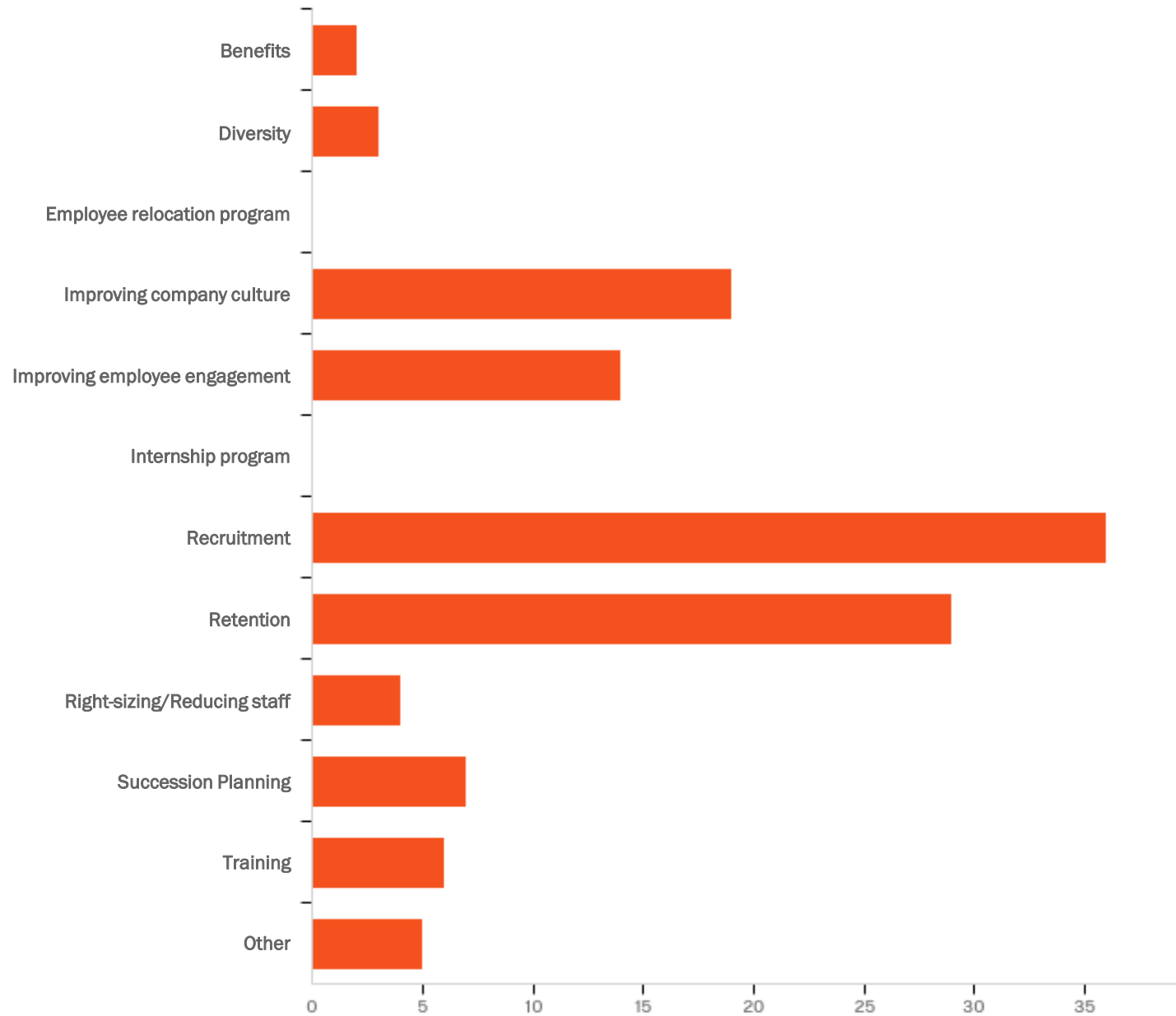
Do you provide work-based learning opportunities for students?

YES

NO

0　10　20　30　40　50　60　70　80
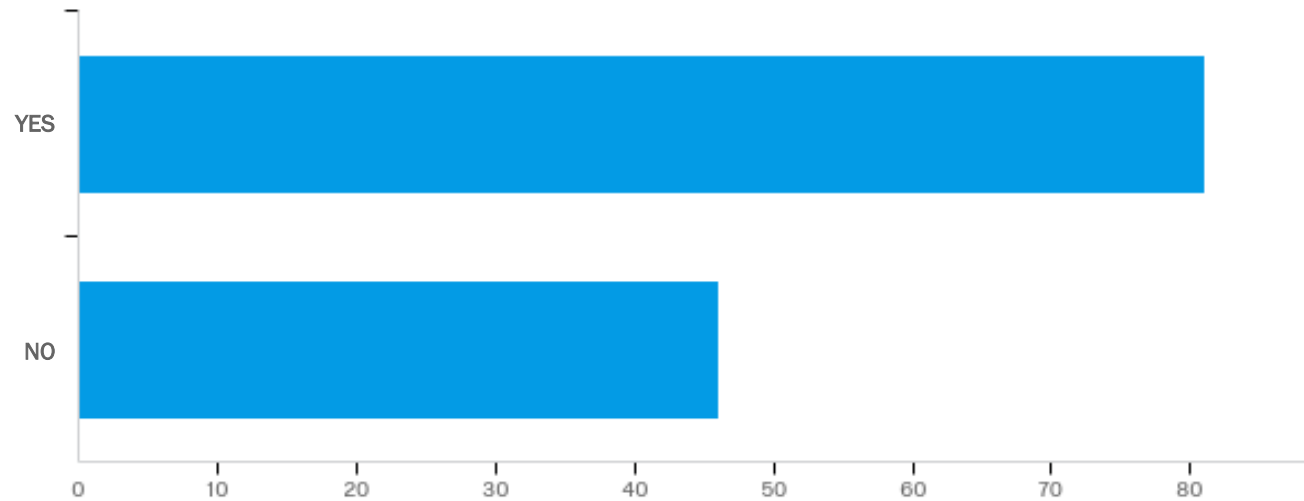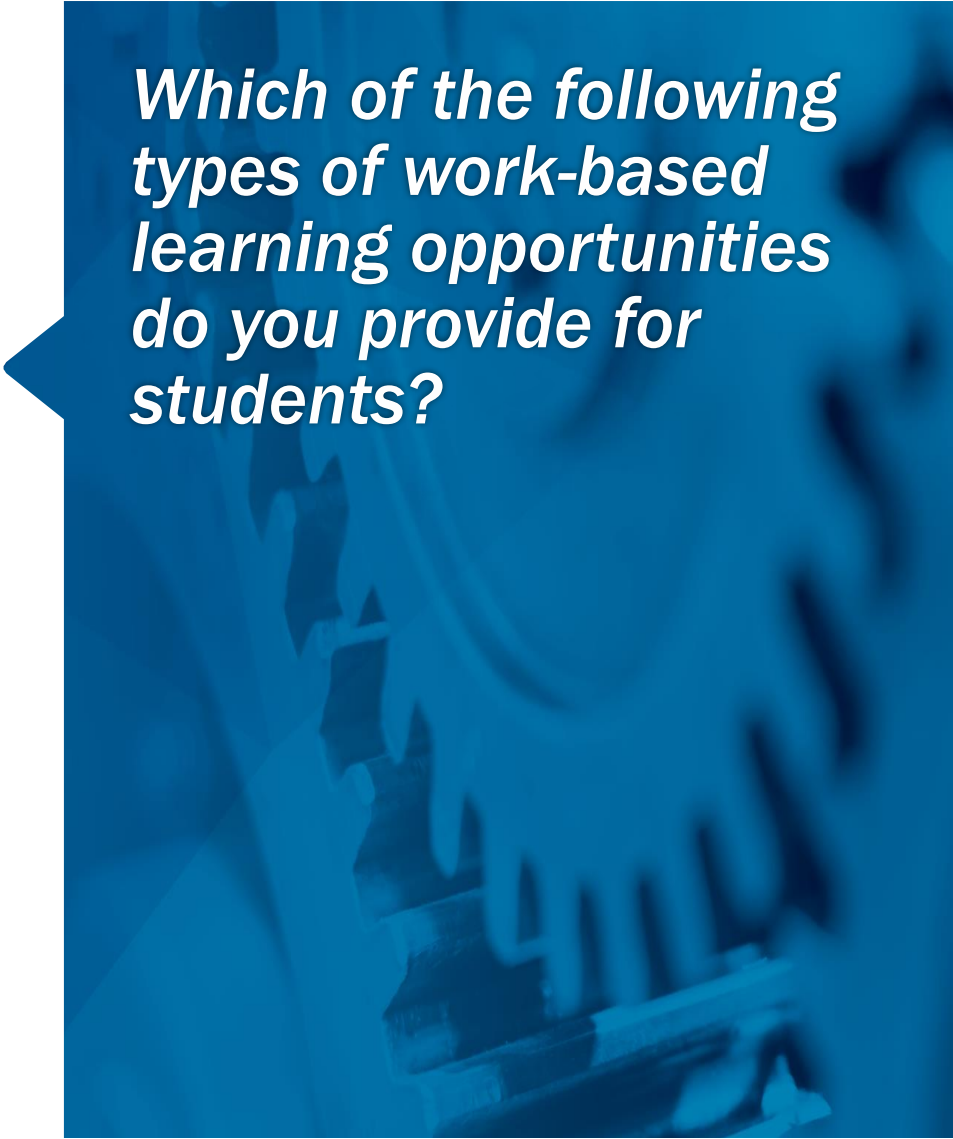
Which of the following types of work-based learning opportunities do you provide for students?

Is your company regularly engaged in talent recruitment from outside the ICR Iowa region?

ICR Iowa Region: Seven counties of Benton, Cedar, Iowa, Johnson, Jones, Linn, Washington.

Chart:

YES	(approximately 55)
NO	(approximately 70)

X-axis: 0, 10, 20, 30, 40, 50, 60, 70
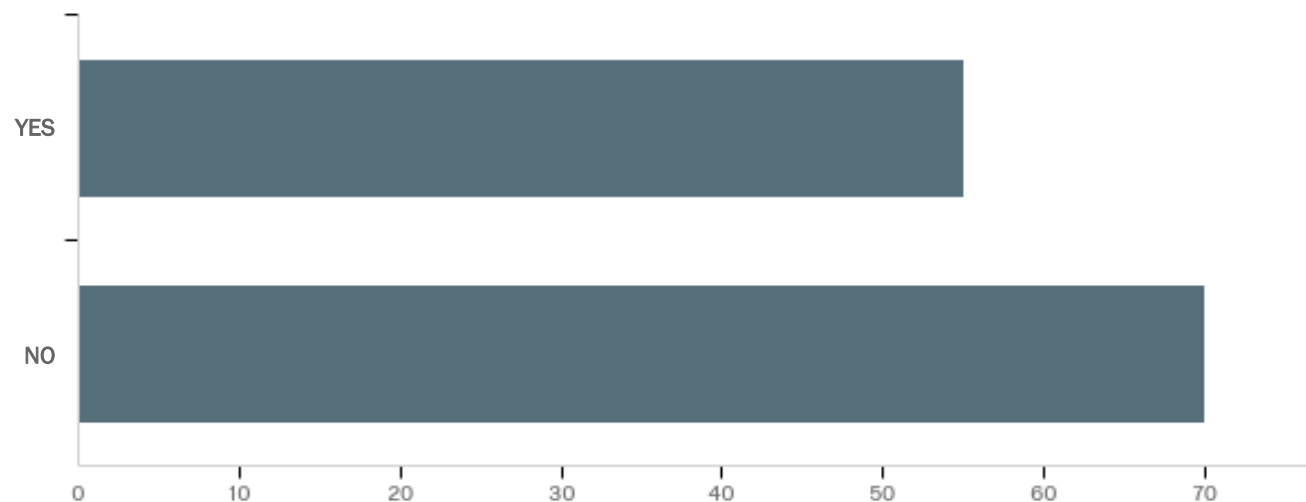
Have you outsourced any labor outside of the ICR Iowa region or state?

ICR Iowa Region: Seven counties of Benton, Cedar, Iowa, Johnson, Jones, Linn, Washington.

YES
NO

0 10 20 30 40 50 60 70 80 90 100 110
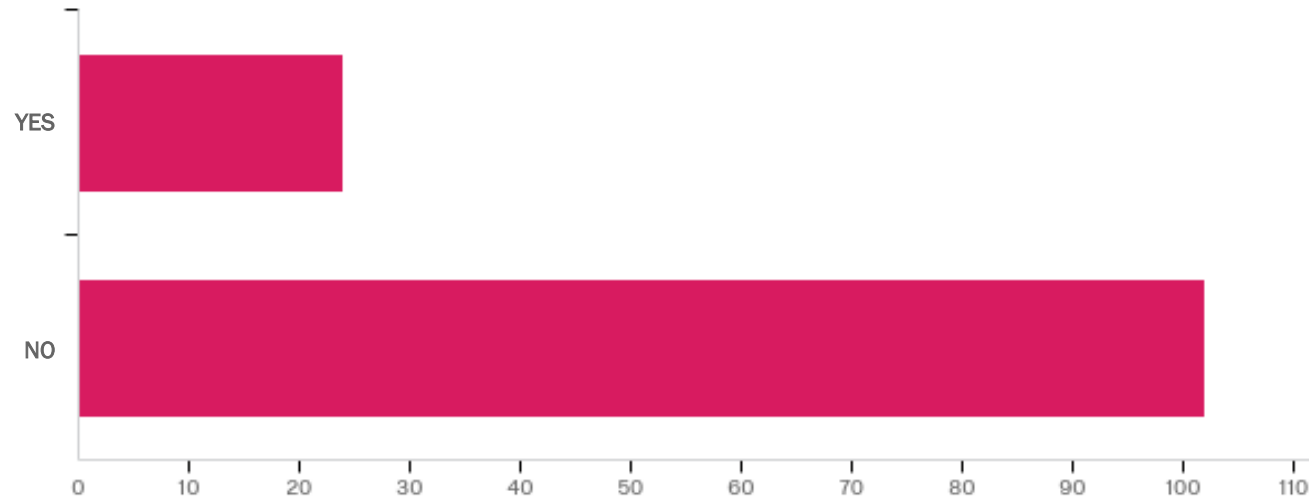
Outsourced Occupations:

Laser Welders	Truck Drivers
Software/Web Developers	Accountants
Medical Lab Technologists	Certified Nurse Aides
Registered Nurses	Engineers

QUESTIONS?

Kirkwood
COMMUNITY COLLEGE

ICR IOWA CITY
CEDAR RAPIDS