

REIMAGINING RAMSEY COUNTY

Building a Resilient Workforce

RealTime Talent

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Reimagining Ramsey County

Introduction

In the first three months of the economic impact of COVID-19, 80,036 Ramsey County residents applied for unemployment insurance—about 22.8% of the local employed workforce, and representing over 10% of all unemployment insurance applications statewide. Although the employment impacts of the pandemic have been forecast to be sharp and short by most economists, without intentional reimagining of our communities, recovery is unlikely to be equally positive for all residents.

This report aims to highlight disparate workforce impacts of the COVID-19 pandemic and the racial and ethnic disparities that have persisted in our community. This report—part of a series of five community profiles—provides the background data necessary for a deeper understanding of community demographics, the varied impacts of job loss by industry, occupation, and demographic, rising opportunities in each community, and opportunities to reimagine the future of work. We explored the following research questions to guide this foundational study:

- What is the educational, linguistic, transportation, and digital literacy profile of each community?
- What industries are most vulnerable to the negative impacts of COVID-19? What is the possible short-term impact on key occupations? What do unemployment insurance application numbers indicate regarding demographics of job loss and occupations losing workers?
- What are the 1) transit accessible, 2) high-demand, 3) high-wage, 4) low-pandemic-vulnerability, and 5) high-skill jobs in each community?

Why this Report Matters

As we look to the future and work to build an economy that works for everyone, we must start with local insights and community voices. This report is a place to begin the conversations that will spark our collective next steps. To learn more about what Ramsey County Workforce Solutions is doing with these findings and get involved in Reimagining Ramsey County, contact Ling Becker at ling.becker@co.ramsey.mn.us.

Table of Contents

Reimagining Ramsey County	2
Introduction	2
Why this Report Matters	2
St. Paul's East Side	4
Introduction	5
Community Profile	6
Demographics	6
Employment	7
Education	9
Transportation	11
Language	12
Digital Literacy	13
Businesses	15
Workforce Impacts of COVID-19	16
Community Vulnerability	16
Industry Vulnerability	20
Occupational Vulnerability	21
Immediate-Term Occupational Impacts	23
Mid-Term Occupational Impacts	27
Shifting Opportunities	28
Remote Work	28
Partially-Remote Work	32
Non-Remote Work	35
Commute Shed	38
Future Growth by Cluster	38
Emerging Career Paths	39
Accessible Career Pathways	41
Retooling and Reimagining Work	47
Foundational Skills	47
Skill Transferability	50
Conclusion	53

REIMAGINING RAMSEY COUNTY

Volume 1

St. Paul's East Side

RealTime Talent

July 2020



RealTime Talent
Using data to build the
world's best workforce

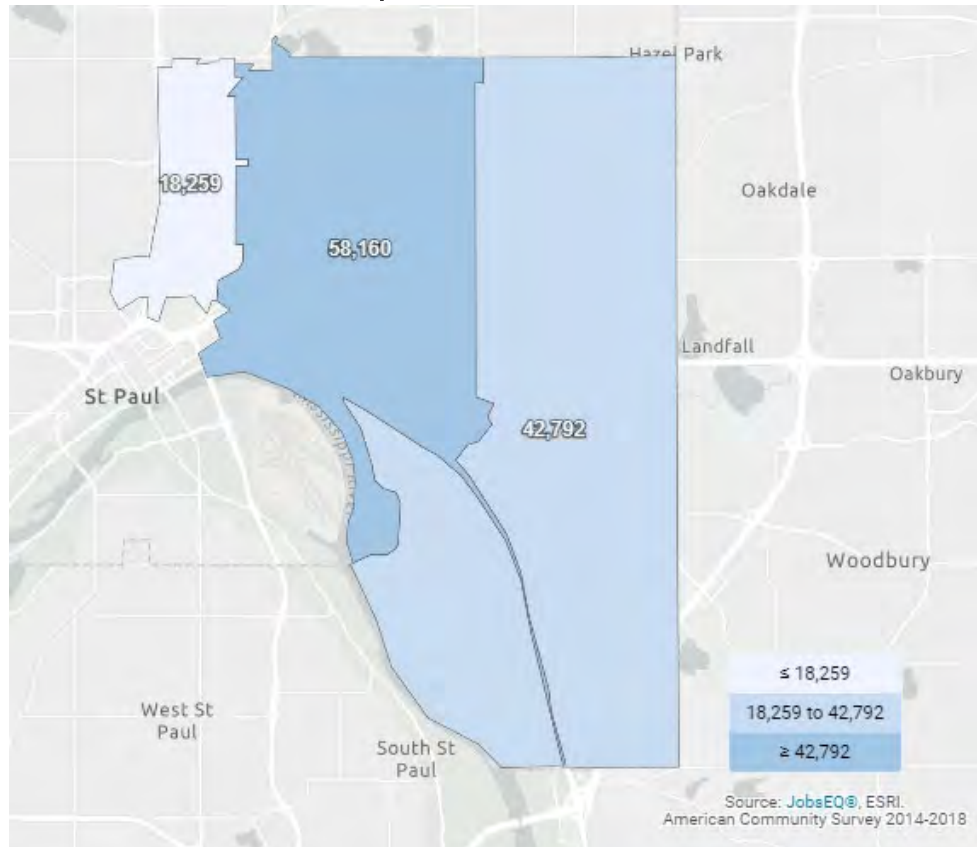


RAMSEY COUNTY
Workforce Solutions

Introduction

St. Paul's East Side is an active and diverse group of neighborhoods nestled to the east, southeast, and northeast direction from downtown St. Paul. St. Paul's East Side is defined by zip codes 55130, 55106, and 55119, or the communities of Payne-Phalen, Dayton's Bluff, Greater East Side, and Sunray-Battlecreek-Highwood. By population, the largest number of people live in zip code 55106, which straddle both sides of I-94 heading east out of downtown. An estimated 1,843 businesses work out of St. Paul's East Side.

Resident Population of St. Paul's East Side

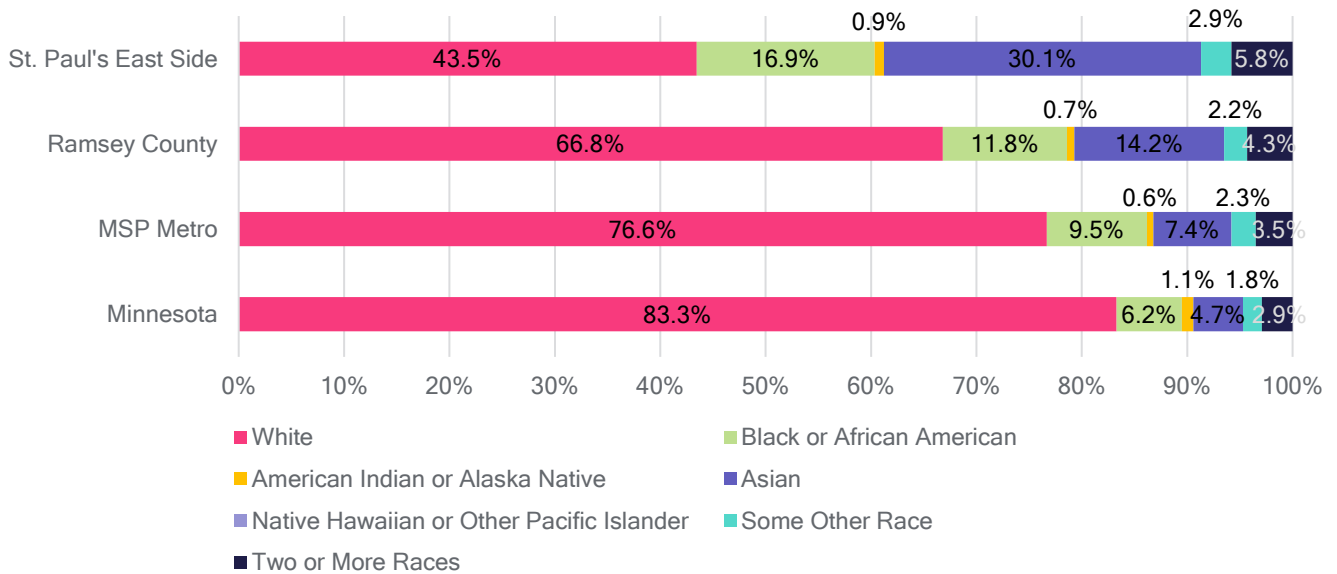


Community Profile

Demographics

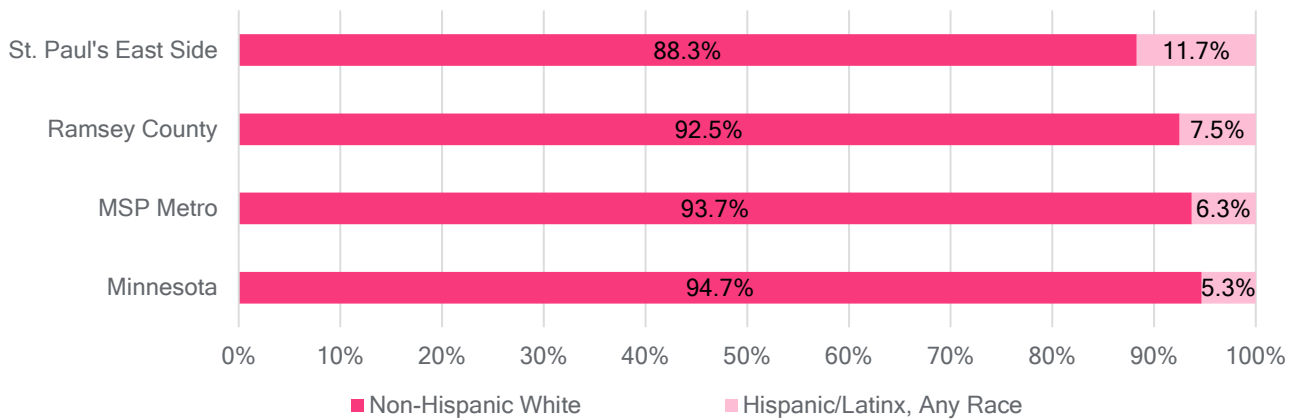
St. Paul's East Side is demographically diverse; 56.5% of the population are non-Hispanic people of color, plus 11.7% identify as Hispanic or Latinx. The largest racial or ethnic group on St. Paul's East Side after Non-Hispanic White is the Asian population, with 30.1% of residents of the East Side identifying as Asian compared to just 14.2% in Ramsey County overall.

Population Race, All Ages



American Community Survey 2014-2018.

Population Ethnicity, All Ages



American Community Survey 2014-2018.

Community Demographics

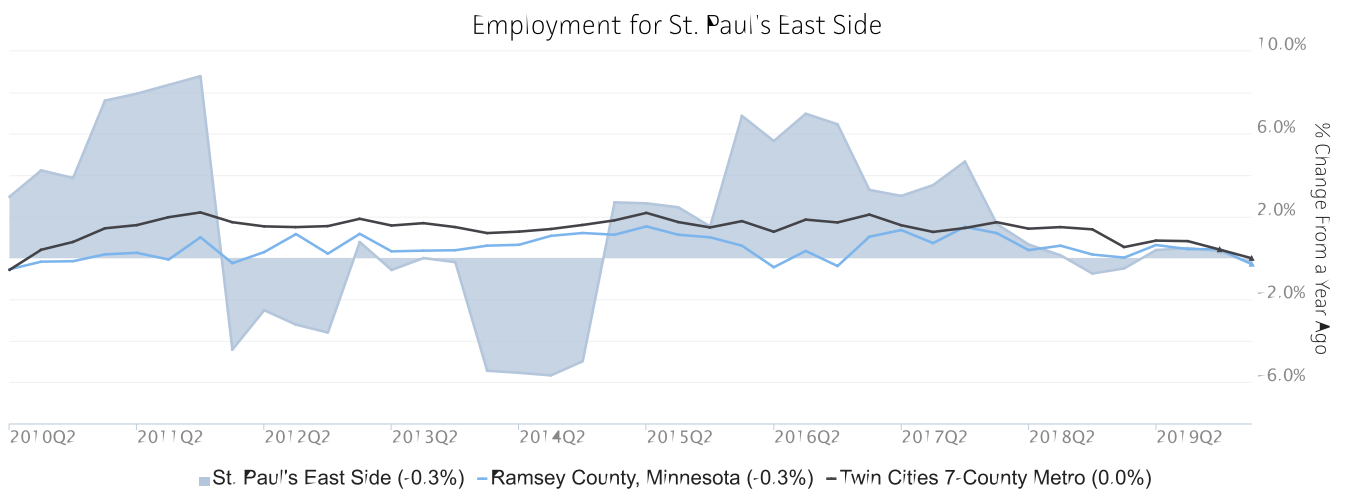
Demographics	Percent			Value		
	St. Paul's East Side	Ramsey County, Minnesota	Twin Cities 7-County Metro	St. Paul's East Side	Ramsey County, Minnesota	Twin Cities 7-County Metro
Population (ACS)	–	–	–	119,211	541,493	3,039,708
Male	50.7%	48.7%	49.4%	60,458	263,843	1,500,624
Female	49.3%	51.3%	50.6%	58,753	277,650	1,539,084
Median Age*	–	–	–	30.4	34.9	36.8
Under 18 Years	30.1%	23.4%	23.6%	35,830	126,490	717,668
18 to 24 Years	9.8%	10.2%	8.7%	11,731	55,420	263,378
25 to 34 Years	17.9%	16.6%	15.1%	21,349	89,740	459,585
35 to 44 Years	12.6%	12.0%	13.1%	15,034	65,173	399,319
45 to 54 Years	11.2%	11.8%	13.5%	13,351	63,728	410,408
55 to 64 Years	9.9%	12.3%	12.8%	11,778	66,694	390,595
65 to 74 Years	5.1%	7.8%	7.7%	6,055	42,271	234,633
75 Years, and Over	3.4%	5.9%	5.4%	4,083	31,977	164,122
Race: White	43.5%	66.8%	76.6%	51,800	361,501	2,328,568
Race: Black or African American	16.9%	11.8%	9.5%	20,106	63,724	288,828
Race: American Indian and Alaska Native	0.9%	0.7%	0.6%	1,062	3,723	18,437
Race: Asian	30.1%	14.2%	7.4%	35,845	77,156	225,056
Race: Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.0%	30	192	1,157
Race: Some Other Race	2.9%	2.2%	2.3%	3,485	12,028	70,602
Race: Two or More Races	5.8%	4.3%	3.5%	6,883	23,169	107,060
Hispanic or Latino (of any race)	11.7%	7.5%	6.3%	13,930	40,569	192,028

American Community Survey 2014-2018 unless noted otherwise.

*Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

Employment

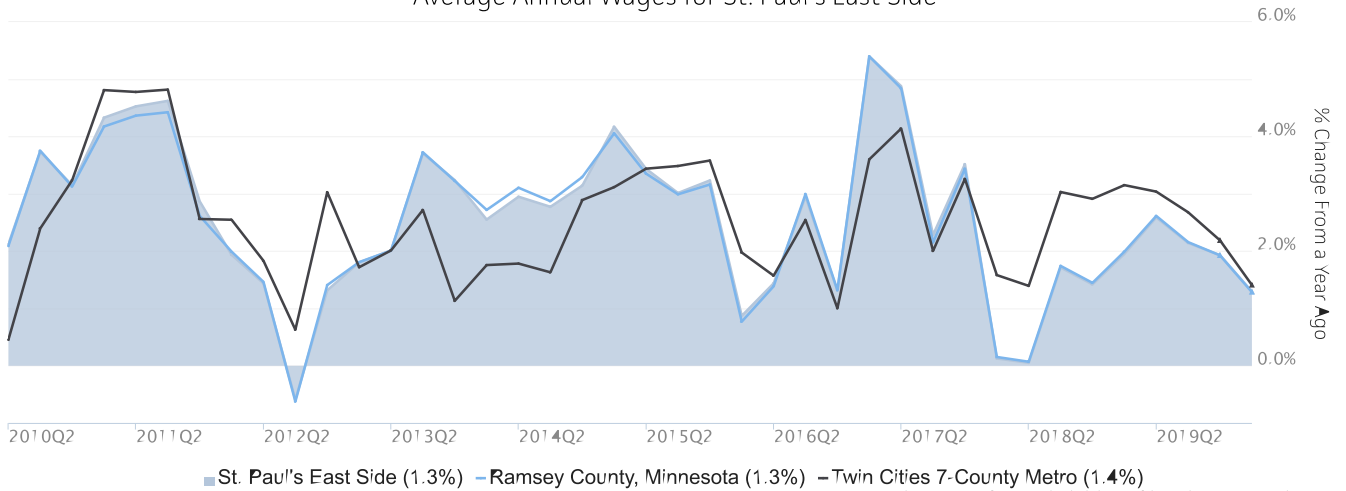
As of 2020Q1, total employment for residents of St. Paul's East Side was 32,787 (based on a four-quarter moving average). Over the year ending 2020Q1, employment declined 0.3% in the neighborhood.



Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2019Q3 with preliminary estimates updated to 2020Q1.

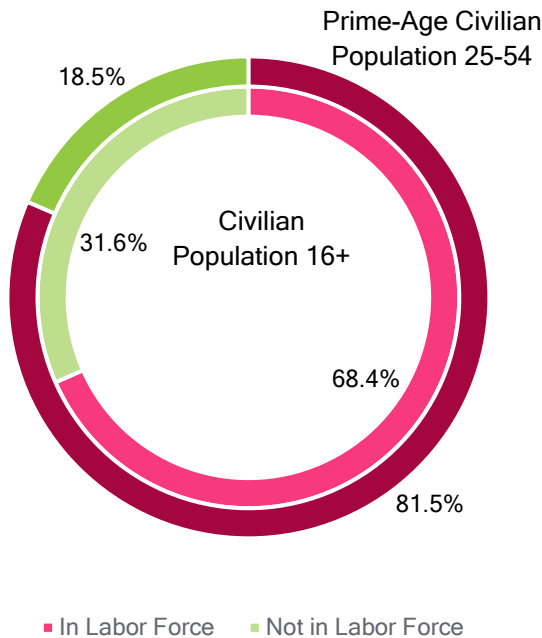
The average worker on St. Paul's East Side earned annual wages of \$62,869 as of 2020Q1. Average annual wages per worker increased 1.3% in the neighborhood over the preceding four quarters, similar to trends seen across Ramsey County and the MSP Metro as a whole. For comparison purposes, annual average wages were \$57,624 in the nation as of 2020Q1.

Average Annual Wages for St. Paul's East Side



Annual average wages per worker data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2019Q3 with preliminary estimates updated to 2020Q1.

Labor Force Participation Rate



Residents of St. Paul's East Side have a lower rate of labor force participation than in Ramsey County overall (Ramsey County Labor Force Participation is 86% for prime working age and 69% for all), perhaps in part due to this neighborhood having a greater number of single parent households (15,671 or 45.7% of households) and residents with disabilities (9,466 or 13% of residents) than seen in many other communities of the MSP Metro. It may also be that this community has a number of residents ineligible to work, as just over a quarter (25.5%) of East Side residents are foreign born. This community has a high proportion of uninsured residents (8.2%) households receiving food stamps (23.7%), and disconnected youth (3.7%) compared to other communities of Ramsey County. The largest share of disconnected youth by population are in zip code 55130 (5.6%), which corresponds with the Dayton's Bluff neighborhood and Payne-Phalen neighborhood just northeast of downtown St. Paul. This is also the

zip code in this community with the largest share of adults between the ages of 25 and 64 without a high school diploma or GED (30.2%) and the largest share of residents who commute to work or school by public transportation (10.3%).

Economic and Social Characteristics of St. Paul's East Side

Economic and Social Characteristics	Percent			Values		
	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro
Labor Force Participation Rate and Size (civilian population 16 years and over)	68.4%	69.0%	72.1%	59,353	295,458	1,730,688
Prime-Age Labor Force Participation Rate and Size (civilian population 25-54)	81.5%	86.0%	88.7%	40,494	187,867	1,125,534
Armed Forces Labor Force	0.1%	0.0%	0.1%	77	214	1,274
Veterans, Age 18-64	2.7%	2.9%	3.5%	1,947	9,950	67,574
Veterans Labor Force Participation Rate and Size, Age 18-64	68.4%	75.8%	81.5%	1,332	7,538	55,073
Median Household Income*	–	–	–	\$50,500	\$62,304	\$77,034
Per Capita Income	–	–	–	\$22,110	\$34,049	\$40,637
Poverty Level (of all people)	21.2%	14.7%	9.4%	25,032	77,330	282,384
Households Receiving Food Stamps/SNAP	23.7%	12.8%	8.2%	9,146	26,850	96,883
Enrolled in Grade 12 (% of total population)	1.9%	1.4%	1.5%	2,301	7,827	46,253
Disconnected Youth**	3.7%	2.1%	1.5%	235	597	2,270
Children in Single Parent Families (% of all children)	45.7%	35.8%	27.9%	15,671	43,659	193,871
Uninsured	8.2%	5.5%	4.6%	9,713	29,542	139,536
With a Disability, Age 18-64	13.0%	10.0%	8.0%	9,466	33,948	152,512
With a Disability, Age 18-64, Labor Force Participation Rate and Size	43.2%	47.0%	53.4%	4,089	15,945	81,517
Foreign Born	25.5%	15.6%	12.0%	30,352	84,379	363,294

American Community Survey 2014-2018 unless noted otherwise.

*Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties. **Disconnected Youth are 16-19 year olds who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force.

Education



80.4% of prime working age adult residents have at least a high school diploma or GED.

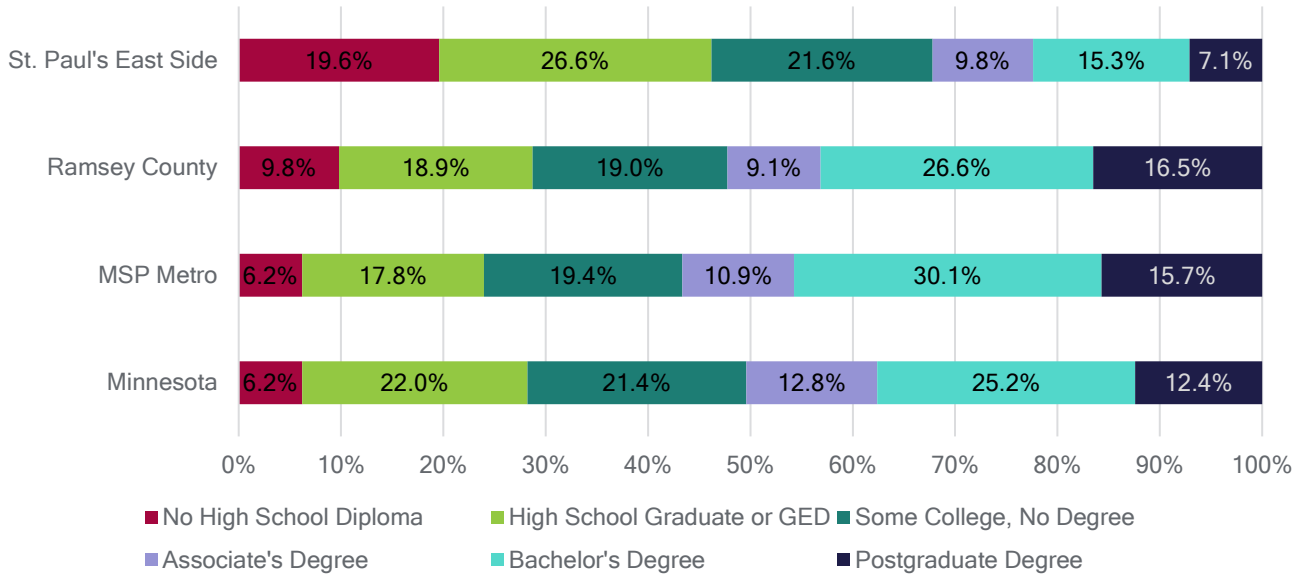
The residents of St. Paul's East Side have a lower level of educational attainment overall in comparison to Ramsey County as a whole and the 7-County MSP Metro. According to the most recent American Community Survey estimates, nearly 20% of East Side residents between ages 25 and 64 do not have a high school diploma, and another 26.6% hold a high school diploma as their highest level of educational attainment.

Educational Characteristics of St. Paul's East Side

Educational Characteristics	Percent			Values		
	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro
No High School Diploma	19.6%	9.8%	6.2%	12,038	28,060	103,067
High School Graduate	26.6%	18.9%	17.8%	16,383	54,037	295,274
Some College, No Degree	21.6%	19.0%	19.4%	13,274	54,211	321,288
Associate's Degree	9.8%	9.1%	10.9%	6,044	25,991	180,284
Bachelor's Degree	15.3%	26.6%	30.1%	9,404	75,814	499,663
Postgraduate Degree	7.1%	16.5%	15.7%	4,369	47,222	260,331

American Community Survey 2014-2018 unless noted otherwise.

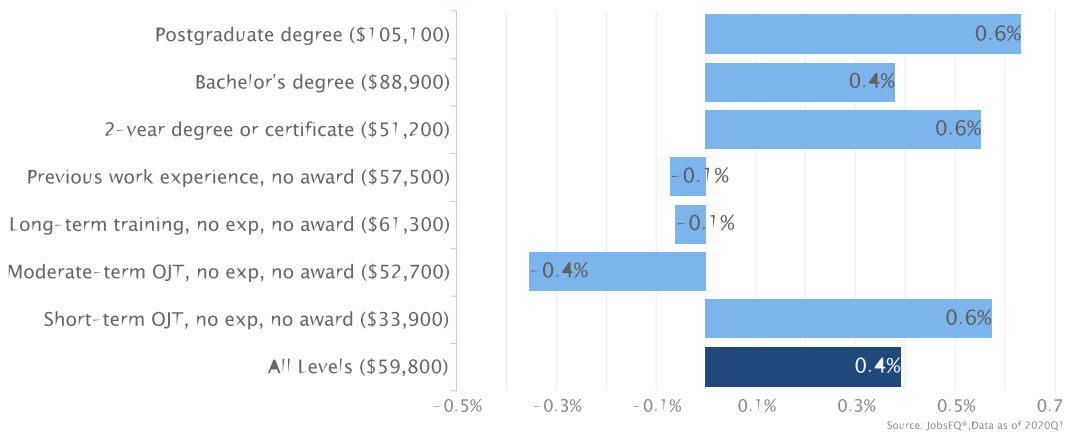
Educational Attainment, Age 25-64



American Community Survey 2014-2018.

Expected growth rates for occupations vary by the education and training required. While all employment in the St. Paul's East Side is projected to grow 0.4% over the next ten years, occupations typically requiring a postgraduate degree are expected to grow 0.6% per year, those requiring a bachelor's degree are forecast to grow 0.4% per year, and occupations typically needing a 2-year degree or certificate are expected to grow 0.6% per year.

Annual Average Projected Job Growth by Training Required for St. Paul's East Side



Employment by occupation data are estimates as of 2020Q1. Education levels of occupations are based on BLS assignments. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

Transportation



3,612 residents
Commute via public transit (6.7%)

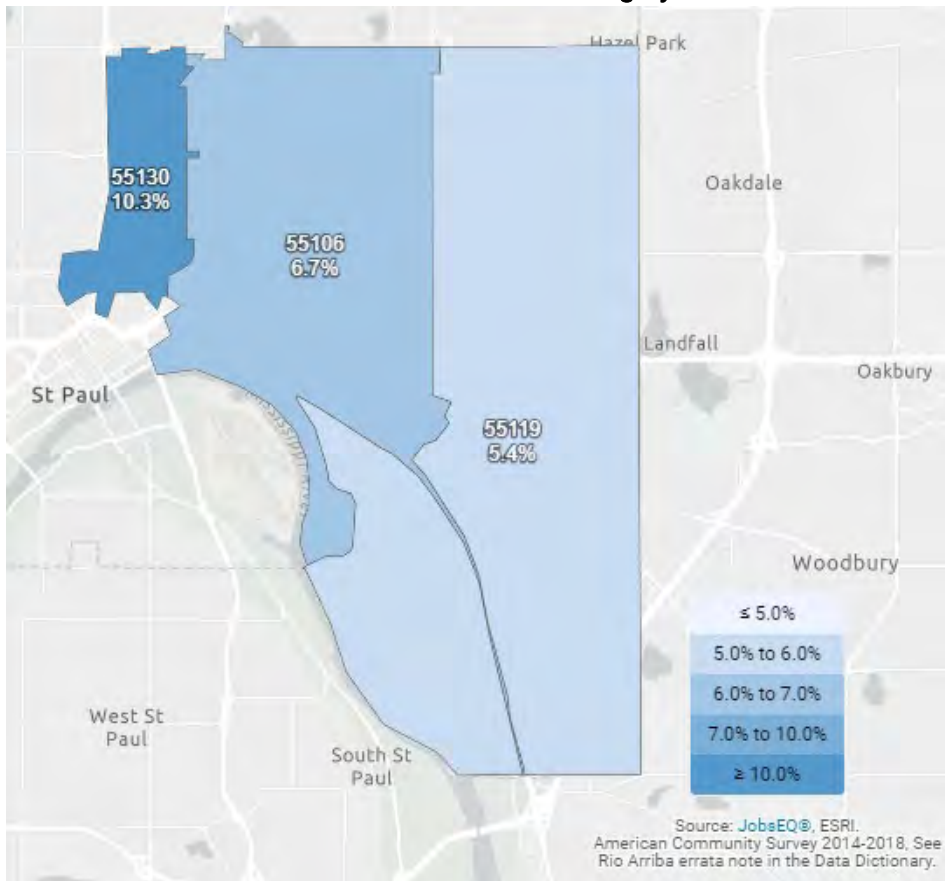
25.8 Minute



Mean Commute Time

4,907 Residences have no vehicle available
(12.7% of all occupied residences)

St. Paul East Side Residents Commuting by Public Transit



Transportation Characteristics of St. Paul's East Side

Transportation Characteristics	Percent			Values		
	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro
Mean Commute Time (minutes)	-	-	-	25.8	23.9	24.7
Commute via Public Transportation	6.7%	6.7%	5.3%	3,612	18,565	87,307
Occupied Housing Units with No Vehicle Available (% of Occupied Units)	12.7%	10.5%	7.8%	4,907	21,937	91,325

American Community Survey 2014-2018 unless noted otherwise.

Language



21.8% of residents over age 5 speak English less than “very well” (a total of 23,738 residents)

77.1% of Ramsey County residents over age 5 speak ONLY English (a total of 388,179 residents)

- 11.5% Asian/Pacific Island Languages
- 5.2% Spanish
- 3.7% Other Languages (African, etc.)
- 2.4% Indo-European Languages

Language Characteristics of St. Paul's East Side

Language Characteristics	Percent			Values		
	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro	St. Paul's East Side	Ramsey County, Minnesota	7-County MSP Metro
Speak English Less Than Very Well (population 5 yrs and over)	21.8%	10.8%	6.6%	23,738	54,243	187,303

American Community Survey 2014-2018 unless noted otherwise.

Primary Languages Spoken in Ramsey County, Ages 5+

English	378,245	80.71%
All languages other than English combined	90,411	19.29%
Hmong	27,858	5.94%
Spanish	24,405	5.21%
African languages	10,883	2.32%
Chinese	3,578	0.76%
Other Asian languages	2,847	0.61%
Vietnamese	2,621	0.56%
French	2,504	0.53%
German	2,018	0.43%
Laotian	1,264	0.27%
Mon-Khmer, Cambodian	1,200	0.26%
Korean	953	0.20%
Arabic	898	0.19%
Tagalog	836	0.18%
Russian	773	0.16%
Thai	721	0.15%
Hindi	720	0.15%
Other Indic languages	676	0.14%
Other Indo-European languages	637	0.14%
Japanese	549	0.12%
Italian	538	0.11%
Polish	496	0.11%
Scandinavian languages	488	0.10%
Other specified North American Indian languages	462	0.10%
Other Slavic languages	380	0.08%
Hebrew	284	0.06%
Portuguese	259	0.06%
Urdu	259	0.06%
Serbo-Croatian	239	0.05%
Other West Germanic languages	202	0.04%
Total:	468,656	

U.S. Census Bureau, 2010 Decennial Census (5-year summary data, collected 2006-2010). Detailed language data available every 10 years.

Digital Literacy

Access to Internet



3% to 34% of households in each census tract have no access to the internet.

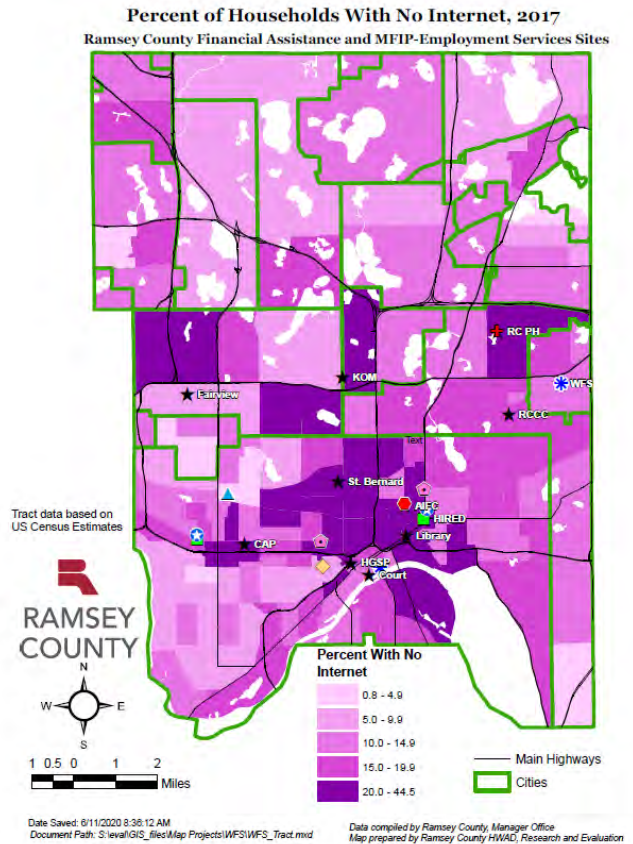
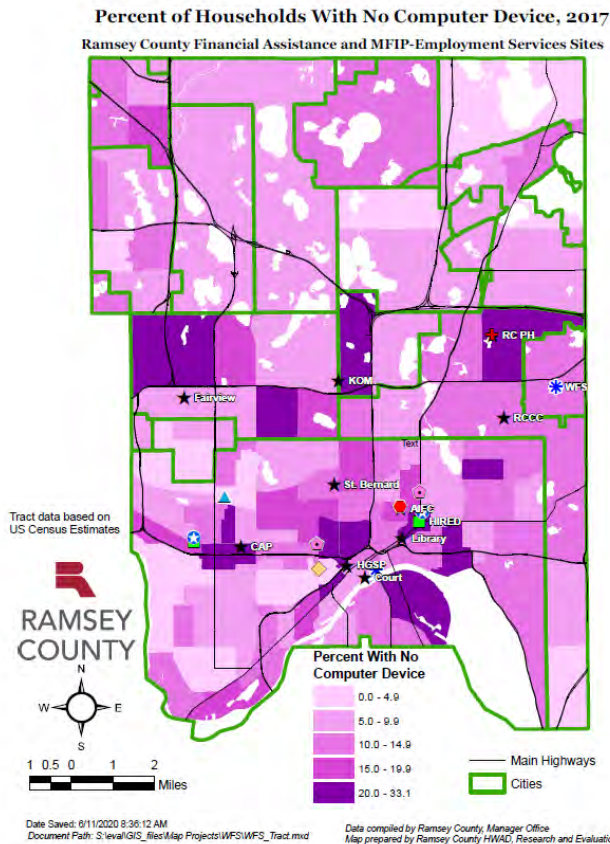
American Community Survey, 2017.

Access to Technology

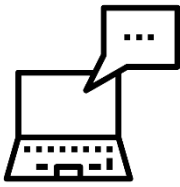


4% to 25% of households in each census tract have no access to a computer device.

American Community Survey, 2017.



Digital Skills



47% of Basic Computer Skills assessments received a passing score on the first try in 2019, 43% of Internet Basics, and 58% of Email assessments.

Northstar Digital Literacy, a program of Literacy Minnesota

North Star Digital Literacy, a program of Minnesota Literacy, offers online assessment modules, curricula resources, and learning tools to help organizations identify gaps and improve digital literacy in their client populations.

On St. Paul's East Side, Northstar Digital Literacy sites¹ administered 452 skills assessments in twelve key areas that represent the first attempt of tester-takers seeking to earn certificates and badges during a six month period.² Among the most frequent assessments administered on St. Paul's East Side in 2019, 47% of Basic Computer Skills assessments received a passing score on the first try, 43% of Internet Basics, and 58% of Email. Member organizations only administered 30 assessments on St. Paul's East Side during the first half of 2020 – a dramatic decrease from the previous time periods.

Number of Digital Literacy Assessments with Passing Scores on the First Try in Basic Computer Skills, Internet Basics, and Email within a Six-month Period

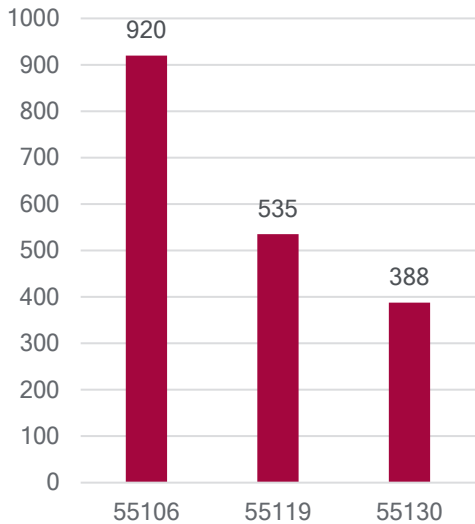
Subject	First Half of 2019		Second Half of 2019		First Half of 2020	
	Passed	Total	Passed	Total	Passed	Total
Basic Computer Skills	47% (30)	64	47% (20)	43	6% (1)	16
Internet Basics	32% (18)	57	63% (19)	30	0% (0)	3
Email	53% (20)	38	67% (18)	27	0% (0)	1

¹ Northstar Digital Literacy is a program of Literacy Minnesota, and Northstar locations are subscription sites independent of Literacy Minnesota/Northstar. Learn more about Northstar Digital Literacy and find test sites at <https://www.digitalliteracyassessment.org/>. Passing a given digital literacy assessment in a specific area does not indicate digital literacy skills in other areas. Numbers in the report reflect distinct first takes within the six-month period.

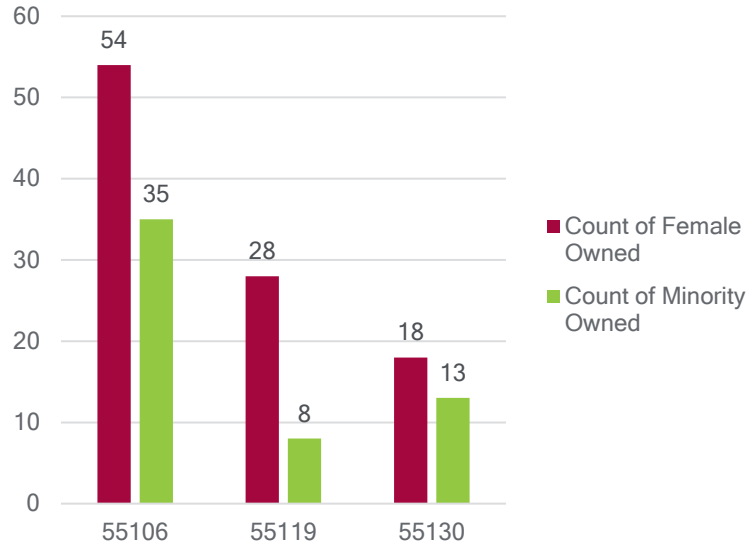
Businesses

According to DatabaseUSA, there are about 1,843 businesses located on St. Paul’s East Side. About half (920 businesses) are located in zip code 55106. Of all East Side businesses, just 100 are confirmed to be female-owned, and 56 are confirmed to be “minority-owned.”

Businesses on St. Paul’s East Side

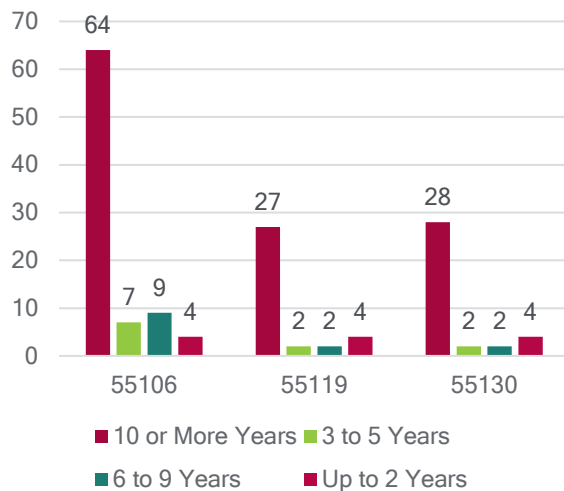


Female & Minority-Owned Businesses on St. Paul’s East Side

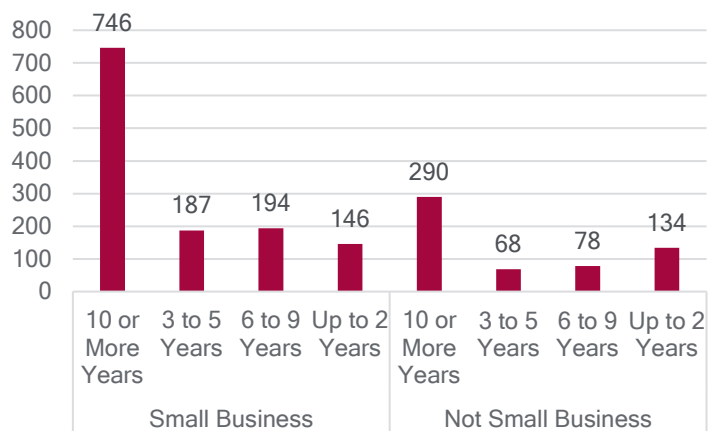


Among the 155 local non-profit organizations, the vast majority have been in existence for ten or more years, with very few young organizations in the community. The majority of for-profit businesses in the area are small businesses.

Non-Profits on St. Paul’s East Side



Businesses by Size on St. Paul’s East Side



Workforce Impacts of COVID-19

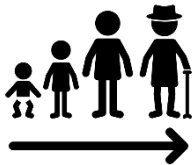
Community Vulnerability

Because COVID-19 is a new disease, more work is needed to better understand the risk factors for severe illness or complications. Potential risk factors that have been identified by the Center for Disease Control (CDC) to date include:

- Age
- Race/ethnicity
- Gender
- Some medical conditions
- Use of certain medications
- Poverty and crowding
- Certain occupations
- Pregnancy

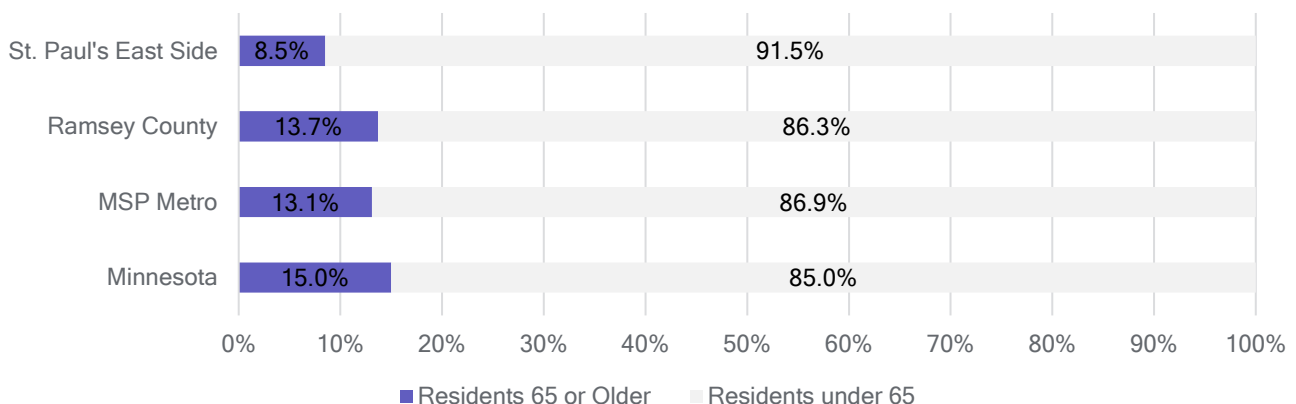
Older adults and people with medical conditions are at increased risk for severe illness. People who may need extra precautions, as prevalence of the virus is higher for these groups, include racial and ethnic minority groups, people living in rural communities, and people experiencing homelessness. Additional groups advised by the CDC to take additional precautions are those who may have more complex treatment needs if they were to fall seriously ill, such as people who are pregnant or breastfeeding, people with disabilities, and people with developmental or behavioral disorders.

AGE



St. Paul's East Side has a **LOWER** share of residents 65 or older (8.5% of residents).

Residents 65+



American Community Survey 2014-2018.

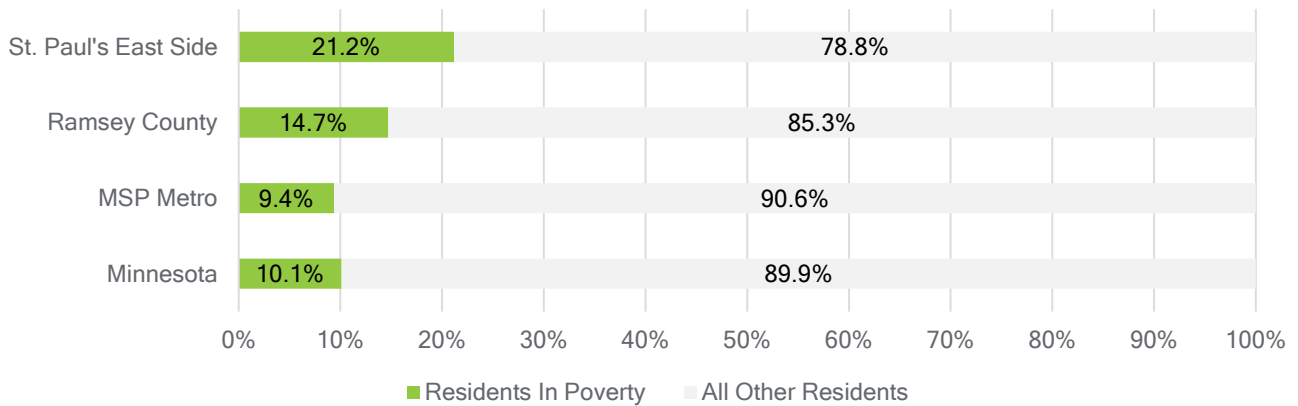
POVERTY



St. Paul's East Side has a **HIGHER** share of residents living in poverty (21.2%).

The per-capita income of residents of St. Paul's East side is \$22,110, which is just over \$12,000 lower than the per-capita income of Ramsey County residents overall (\$34,049). About one in five (21.2%) East Side residents lives in poverty, and nearly one in four (23.7%) receive food stamps, Compared to 14.7% and 12.8% across Ramsey County, respectively.

Residents in Poverty



American Community Survey 2014-2018.

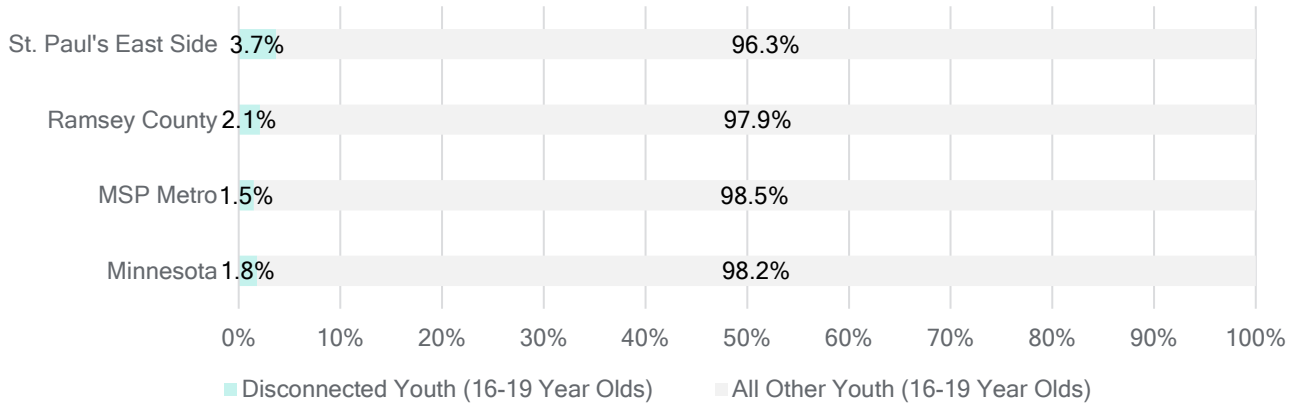
DISCONNECTED YOUTH



St. Paul's East Side has a **HIGHER** share of disconnected youth (3.7%).

St. Paul's East Side has about 235 disconnected youth, which is about 3.7% of the total population of people between the ages of 16 and 19. These youth are not in school, not high school graduates, and are either unemployed or not in the labor force. The East Side's disconnected youth represent about 5% of all disconnected youth in the state (5,025 total statewide).

Disconnected Youth



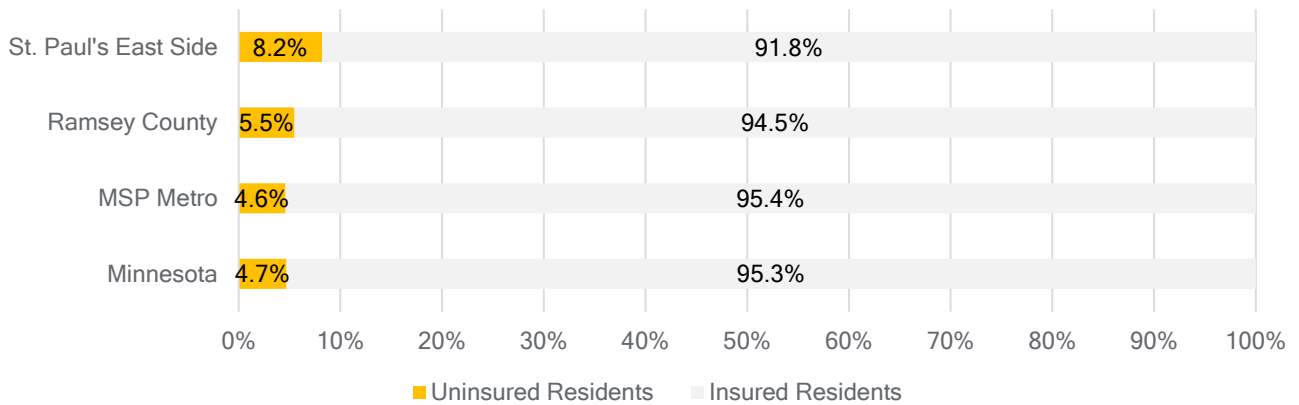
American Community Survey 2014-2018.

UNINSURED



St. Paul's East Side has a **HIGHER** share of residents without health insurance (8.2%).

Uninsured Residents



American Community Survey 2014-2018.

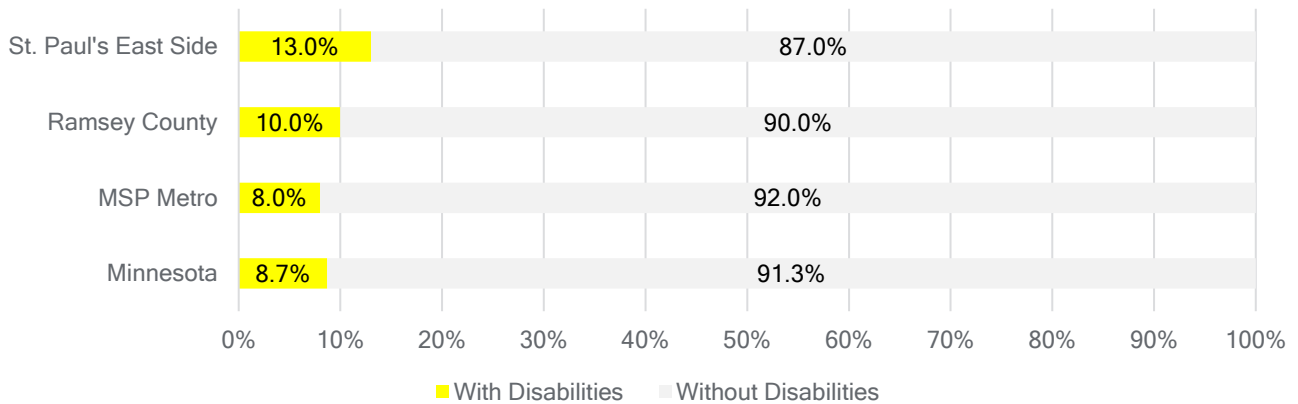
DISABILITY



St. Paul's East Side has a **HIGHER** share of residents with disabilities (13.0%).

St. Paul's East Side has a larger share of prime working age adults with disabilities, with about 9,466 adults (13%) having some form of disability. Of these, 43.2% participate in the labor force (4,089 total working or seeking work), compared to 52.5% statewide.

Residents with Disabilities, Ages 18-64



American Community Survey 2014-2018.

HOMELESSNESS



About 1,579 Ramsey County residents (0.3%) experienced homelessness in January 2019, and an estimated 3,298 (0.6% of residents) accessed emergency shelter services in 2019.

According to the Ramsey County Homelessness Management Information System (HMIS), 3,298 people accessed emergency shelter services in Ramsey County in 2019—or about one in every 200 people residing in Ramsey County. On a single night in January 2019, there were 1,579 Point-in-Time (PIT) individuals experiencing homelessness, including those in emergency shelters, transitional housing, unsheltered, or in other outdoor places. The majority of people counted in the PIT estimates were utilizing emergency shelters. Black and American Indian people are much more likely to experience homelessness than other groups, with Black individuals being eight times more likely and American Indian people 13 times more likely to experience homelessness than White people in Ramsey County. According to PIT estimates, about 27% of Ramsey County residents experiencing homelessness in 2019 were children.

Ramsey County Residents Experiencing Homelessness



Ramsey County, 2019. <https://opendata.ramseycounty.us/Health-and-Environment/Total-Homeless/h9kg-nnh5>

Industry Vulnerability

The Economic Vulnerability Index is a measurement developed by Chmura Economics to estimate the negative impact that the coronavirus crisis can have on employment based upon a community's mix of industries.³ For example, accommodation and food services are projected to lose more jobs as a result of the coronavirus (over half of jobs lost, on average across the broad industry category) compared to utilities and education services (with mild or no job contractions in most cases). Overall, this index measure the possible impact in a community dependent upon the local industry mix—it does not take into account variation due to a region's rate of viral infection, health services, policies, or other considerations.

According to Chmura Economics, “the average Vulnerability Index score is 100, representing the average job loss expected in the United States. Higher scores indicate the degree to which job losses may be greater—an index of 200, for example, means the rate of job loss can be twice as large as the national average. Conversely, an index of 50 would mean a possible job loss of half the national average.” In the MSP Metro, Scott County may have as much as 20% higher job losses, while Ramsey County may have about 18% lower job losses than the national average.

Economic Vulnerability of MSP Metro Counties by Industry Mix, July 2020

MSP Metro Counties	Vulnerability Index	National Rank
Scott County	119.58 ↘	252 ↘
Washington County	117.73 ↗	276 ↗
Dakota County	104.03 ↗	591 ↗
Anoka County	103.07 ↗	635 ↗
Carver County	95.46 ↘	1,019 ↗
Hennepin County	93.01 ↗	1,176 ↗
Ramsey County	81.76 ↘	1,795 ↗

Economic Vulnerability Index model from Chmura Economics & Analytics

³ Chmura Economics, April 2020. <http://www.chmuraecon.com/interactive/covid-19-economic-vulnerability-index/>

Note: Trendline indicates whether the county improved or lost rank from the first forecasts put forth in March. Downward arrow indicates improved ranking. Scott County remains in the top 8% for expected impact out of 3,141 counties nationwide.

An estimated 10% of local occupations by industry on St. Paul's East Side are vulnerable to the immediate-term impacts of COVID-19.

Short-Term Industry Vulnerability to COVID-19 Pandemic, St. Paul's East Side

Industry	Anticipated Short-Term Job Loss from COVID-19	Total Local Employment	Total Vulnerable Jobs
Accommodation and Food Services	60%	2,131	1,279
Arts, Entertainment, and Recreation	60%	394	236
Other Services (except Public Administration)	15%	1,705	256
Transportation and Warehousing	10%	642	64
Retail Trade	20%	2,051	410
Wholesale Trade	20%	545	109
Information	15%	207	31
Manufacturing	7%	951	67
Construction	7%	704	49
Mining, Quarrying, and Oil and Gas Extraction	5%	8	0
Real Estate and Rental and Leasing	5%	277	14
Health Care and Social Assistance	5%	7,477	374
Finance and Insurance	5%	472	24
Educational Services	5%	6,837	342
Administrative and Support and Waste Management and Remediation Services	2%	1,461	29
Agriculture, Forestry, Fishing and Hunting	2%	11	0
Public Administration	1%	1,170	12
Professional, Scientific, and Technical Services	1%	647	6
Management of Companies and Enterprises	1%	5,095	51
Utilities	1%	-	-
Total Jobs	10%	32,787	3,353

Economic Vulnerability Index model from Chmura Economics & Analytics

Occupational Vulnerability

Research by Dingel and Neiman⁴ and by Leibovici, Santacreu, and Famiglietti⁵ highlight occupations that cannot be done from home and are consistently high contact-intensity. Following their models, a combination of occupational employment estimates as of the fourth quarter of 2020 on St. Paul's East Side, coupled with an index of occupational contact-intensity from O*NET, gives us a picture of local occupations in high vulnerability due to their level of close proximity to patients or the general public. O*NET classifies positions based on a rating system of job requirements in close physical proximity to other people. The possible answers and corresponding scores are:

- I don't work near other people (beyond 100 ft.): 0
- I work with others but not closely (e.g. private office): 25
- Slightly close (e.g. shared office): 50
- Moderately close (at arm's length): 75
- Very close (near touching): 100

All occupations are then classified into low-medium and high contact-intensity categories based on scores of 0-50 (low), 50-75 (medium), and 75+ (high). Fifteen out of 107 occupations at the

⁴ Dingel, C. L., and B. Neiman (2020): "How Many Jobs Can be Done at Home?" *NBER Working Paper No. 26948*.

⁵ Leibovici, F., A. M. Santacreu, and M. Famiglietti (2020): "Social Distancing and Contact-Intensive Occupations," FRB St. Louis Technical Report, URL: <https://www.stlouisfed.org/on-the-economy/2020/march/social-distancing-contact-intensive-occupations#:~:text=Food%20and%20beverage%20serving%20workers%20are%20at%20the%20bottom%20of,K%20to%2012th%20grade%20teachers.>

four-digit Standard Occupation Level (SOC) are considered high contact-intensity. The occupation cluster of highest contact intensity are Barbers, Hairstylists, and Cosmetologists, with a physical proximity index of 92.17. Other occupations that are contact-intensive include teachers, health care workers, and a multitude of roles in the service industry. Minnesota has around 21% of workers in high contact-intensity roles, on the lower end of states ranging from 20% to 25% overall.

St. Paul's East Side has a larger share of high contact-intensity positions than Minnesota overall, with about 31% of individuals employed in the first quarter of 2020 being employed in high contact-intensity positions. The majority of these were in direct health care support roles, health diagnosing and treating roles, food and beverage service roles, or teaching roles. Of these, the healthcare positions are expecting the greatest volume in annual growth over the next five years. In all, about 37% of new positions opening up due to job exits, job changes, or job growth under normal economic conditions would be for high contact-intensity positions on St. Paul's East Side. Across Ramsey County, these high contact-intensity roles pay an average \$51,300 per year compared to just \$48,600 for jobs located on St. Paul's East Side.

Summary Statistics of High Contact-Intensity Positions on St. Paul's East Side, 2020Q1

SOC	Occupation	Proximity Index	Annual Supply Gap	Current Empl. 2020Q1	Annual Growth Demand	Annual Sep Demand	Total Annual Demand	Projected Empl 2030	Accum. Supply 2025	Accum. Demand 2025	Avg Wages
31-2000	Occupational Therapy and Physical Therapist Assistants and Aides	90.5	0	26	1	5	5	33	11	12	\$55,100
31-1100	Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides	90.3	1	3,027	87	669	757	3,901	1,499	1,495	\$29,900
35-1000	Supervisors of Food Preparation and Serving Workers	88.0	1	222	1	44	45	231	110	103	\$42,800
29-1000	Healthcare Diagnosing or Treating Practitioners	86.2	(14)	1,181	15	91	105	1,326	194	263	\$117,300
39-1000	Supervisors of Personal Care and Service Workers	84.5	(1)	91	1	13	14	101	30	33	\$45,200
29-2000	Health Technologists and Technicians	82.7	(5)	677	6	70	76	737	164	191	\$51,500
31-9000	Other Healthcare Support Occupations	80.2	(1)	314	4	53	57	355	123	130	\$46,000
25-2000	Preschool, Elementary, Middle, Secondary, and Special Education Teachers	79.5	(7)	1,277	9	143	151	1,364	355	389	\$67,000
25-3000	Other Teachers and Instructors	79.0	(1)	402	3	71	74	428	156	160	\$44,700
53-3000	Motor Vehicle Operators	75.6	2	695	2	125	126	711	283	272	\$41,400
39-9000	Other Personal Care and Service Workers	75.5	5	612	3	138	142	644	331	305	\$33,300
35-3000	Food and Beverage Serving Workers	75.2	28	1,492	10	399	409	1,594	972	831	\$27,400
All High Contact-Intensity Occupations				10,016	142	1,821	1,961	11,425	4,228	4,184	\$48,600
Total - All Occupations				32,787	128	5,177	5,311	34,085	12,863	12,399	\$59,800
Share High Contact-Intensity				31%	HIGH	35%	37%	34%	33%	34%	

The ongoing pandemic affects each of these occupations, though in different ways: for instance, with hospitality and food service roles being largely eliminated during the first three months of the pandemic, while essential occupations remained in high demand and experienced dramatic shortages of workers. Health Diagnosing and Treating Practitioners is one occupation area that has had extremely varied experiences, as some medical procedures not deemed essential were placed on hold for a period of time and sending many into furlough. Long-term, Health Diagnosing and Treating Practitioners are expected to be in shortage on St. Paul's East Side and experiencing higher than average growth demand. Average wages for these roles are \$117,300 in this neighborhood and positions typically require a college degree. See more on detailed occupation impacts in the immediate-term through local unemployment application trends and the mid-term based on occupation supply-demand analysis.

Immediate-Term Occupational Impacts

Non-essential occupations that require a high-degree of close physical interaction have been hit hardest in the early weeks of the pandemic, as consumers reduced demand in pursuit of social distancing and regulation at state and local levels shut down business functions in high-contact roles. According to Leibovici and collaborating authors, “these occupations are likely to be more vulnerable to the shock, leading either to layoffs of nonessential workers or to an increase in the risk of contagion among those workers that have to stay in the workplace to perform essential activities. Carrying out some of these occupations remotely, when plausible, is likely to allow them to better absorb the negative shock.”⁶

Food and Beverage Serving Workers and Retail Sales Workers had the most applicants for unemployment in Ramsey County since the beginning of the COVID-19 Pandemic, representing over 15% of all applications. Both of these occupation groups are also found in large volumes on St. Paul's East Side, representing about 8% of all local jobs together.

⁶ Ibid.

Unemployment Insurance Applicants by Top 20 Occupations Requesting Insurance in Ramsey County from March 16, 2020 - July 25, 2020, with East Side Employment

Occupation Group	Unempl. Insurance Applicants in Ramsey County	% of Total Applicants in Ramsey County	2020Q1 Employment on St. Paul's East Side	% of Total on St. Paul's East Side*
Food and Beverage Serving Workers	6,235	7.90%	1,492	4.6%
Retail Sales Workers	5,875	7.50%	1,160	3.5%
Cooks and Food Preparation Workers	3,589	4.60%	515	1.6%
Motor Vehicle Operators	3,496	4.40%	695	2.1%
Construction Trades Workers	3,240	4.10%	501	1.5%
Other Healthcare Support Occupations	3,196	4.10%	314	1.0%
Information and Record Clerks	2,961	3.80%	1,122	3.4%
Other Food Preparation and Serving Related Workers	2,704	3.40%	169	0.5%
Other Production Occupations	2,624	3.30%	200	0.6%
Health Diagnosing and Treating Practitioners	2,512	3.20%	1,181	3.6%
Personal Appearance Workers	1,959	2.50%	123	0.4%
Nursing, Psychiatric, and Home Health Aides	1,844	2.30%	3,027	9.2%
Other Office and Administrative Support Workers	1,694	2.20%	836	2.5%
Building Cleaning and Pest Control Workers	1,588	2.00%	698	2.1%
Health Technologists and Technicians	1,555	2.00%	677	2.1%
Other Education, Training, and Library Occupations	1,547	2.00%	930	2.8%
Other Personal Care and Service Workers	1,537	2.00%	612	1.9%
Other Management Occupations	1,483	1.90%	925	2.8%
Preschool, Primary, Secondary, and Special Education	1,207	1.50%	1,277	3.9%
Computer Occupations	1,187	1.50%	1,091	3.3%
Total	52,033		32,787	

*Fields marked in orange are in the top ten percent of occupations by volume on St. Paul's East Side.

By demographic, St. Paul Residents between the ages of 20 and 24 years and 65 and older had their careers disproportionately negatively impacted by COVID-19, applying for unemployment insurance at higher rates than would be expected based on the overall share of all workers they represent. On the East Side, there is a greater share of people under the age of 34 in high contact-intensity roles than when compared to overall employment across all occupations. Individuals in these groups may be more likely to be exposed to the virus in their place of work, or experience layoffs associated with being in proximity to the public.

Occupations requiring a high school diploma or only some college education were disproportionately impacted by COVID-19 across Ramsey County and in St. Paul specifically. St. Paul's East Side has a particularly high concentration of local workers who have low educational experience. By sex, females have applied for unemployment insurance at higher rates in St. Paul than males; although females comprise a smaller share of St. Paul's East Side workforce, they represent 69.4% of local workers in high contact-intensity occupation groups. Similarly, Asian and Black/African American workers in St. Paul have applied for unemployment insurance at higher rates than would be expected by their local employment rate. On the East Side, there are particularly high numbers of Asian and Black/African American workers, particularly working in high contact-intensity occupations.

**Unemployment Insurance Applicant Demographics from March 16 - July 25, 2020 in Ramsey County and St. Paul, With East Side
Employment in High Contact-Intensity Occupations**

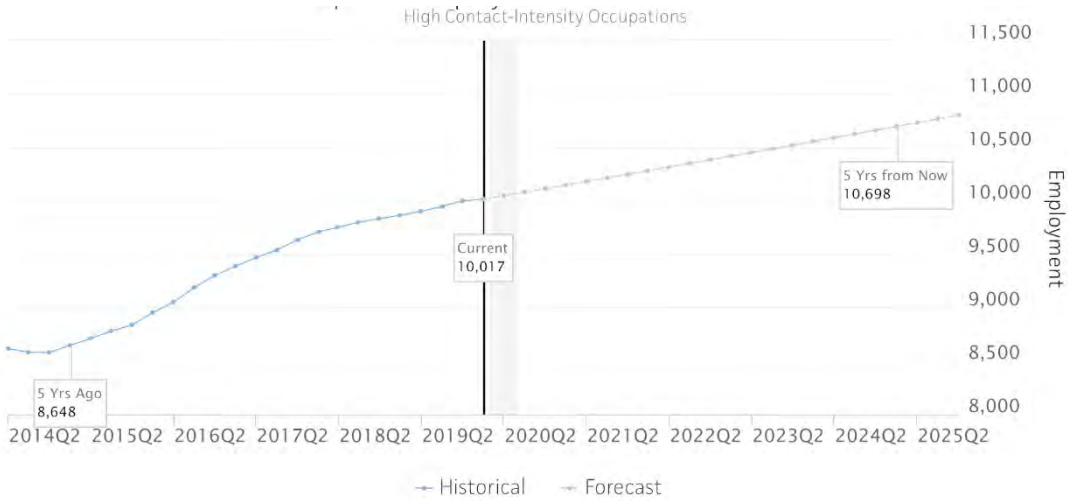
	Ramsey County		St. Paul				St. Paul's East Side	
	Ramsey County Workers Filing for Unemployment between March 15 and July 25, 2020	Percent of Total in Ramsey County Filing for Unemployment	St. Paul Workers Filing for Unemployment between March 15 and July 25, 2020	Percent of Total in St. Paul Filing for Unemployment	Share of Total 2020Q1 St. Paul Employment	Difference (> 0 Indicates Higher Than Expected UI App by Group)	Share of 2020Q1 Workers on St. Paul's East Side	Employment in High Contact-Intensity Occupations on St. Paul's East Side**
St. Paul Age Group								
65+	4,602	5.10%	3,308	4.4%	4.1%	1.5%	2.7%	2.9%
55-64	11,603	12.90%	8,533	11.3%	14.3%	-0.7%	12.6%	12.0%
45-54	13,117	14.60%	10,113	13.3%	17.1%	-2.6%	17.5%	15.9%
35-44	18,656	20.80%	15,066	19.9%	19.2%	0.8%	20.9%	19.1%
25-34	26,620	29.60%	23,248	30.7%	28.7%	0.4%	30.7%	30.3%
20-24	12,682	14.10%	13,322	17.6%	12.4%	3.9%	11.5%	13.7%
16-19	2,639	2.90%	2,179	2.9%	4.2%	-3.1%	4.1%	6.0%
St. Paul Education Level								
Advanced	6,224	6.9%	4,924	6.5%	16.8%	-10.3%	8.5%	9.4%
4-year degree	17,608	19.6%	14,839	19.6%	28.4%	-8.8%	21.6%	22.2%
2-year degree	7,513	8.4%	5,834	7.7%	9.7%	-2.0%	10.6%	13.2%
Some college	23,239	25.8%	20,123	26.6%	16.7%	9.9%	19.6%	21.7%
HS	28,689	31.9%	24,079	31.8%	20.3%	11.5%	27.5%	25.0%
Less than HS	6,646	7.4%	5,970	7.9%	8.1%	-0.2%	12.2%	8.6%
St. Paul Gender								
Female	46,363	51.60%	38,676	51.0%	49.7%	1.3%	47.2%	69.4%
Male	43,555	48.40%	37,092	49.0%	50.3%	-1.3%	52.8%	30.6%
St. Paul Race and Ethnicity								
Choose not to answer	N/A*	N/A	3,936	5.2%				
More than one race	N/A	N/A	2,787	3.9%	3.4%	0.5%	3.0%	2.9%
Native Hawaiian or Pacific Islander	N/A	N/A	119	0.2%	0.0%	0.2%	0.0%	0.0%
American Indian Alaska Native	595	0.70%	534	0.7%	0.7%	0.0%	0.7%	0.5%
Hispanic	45,825	6.70%	5,840	8.1%	8.3%	-0.2%	11.9%	8.8%
Asian	13,295	14.80%	11,037	15.4%	14.7%	0.7%	27.7%	30.1%
Black	16,436	18.30%	15,426	21.5%	12.9%	8.6%	16.4%	21.1%
Non-Hispanic White	45,825	51%	36,090	50.2%	60.3%	-10.1%	42.1%	38.3%
Total UI Applications	89,919		75,769					

*Race percent are of those who indicated a race/ethnicity. Some race data was not available online at the county level through the UI Applicant Data Tool.

**Fields marked in orange are found in greater concentration on St. Paul's East Side than in St. Paul broadly.

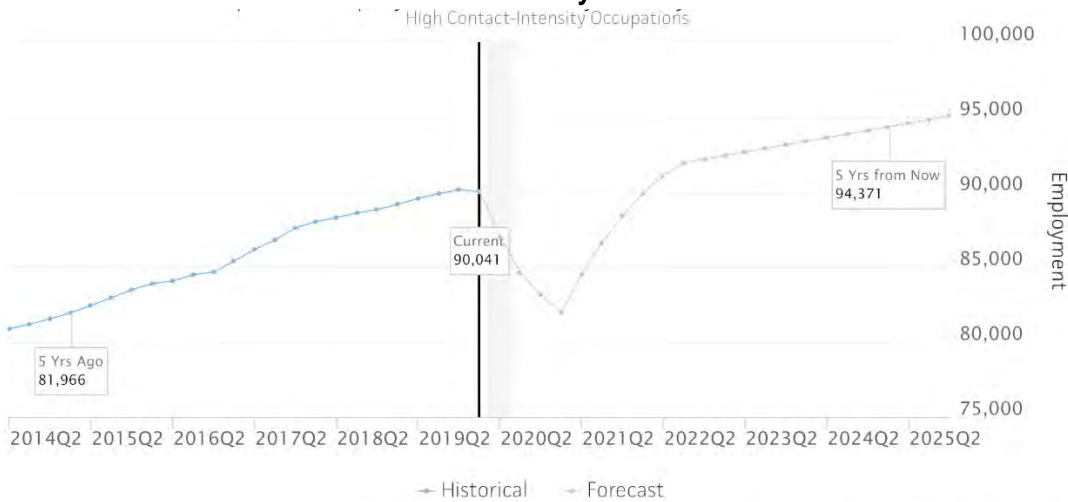
Overall, impacts of COVID-19 have been expected to be sharp and short, with an eventual return to the forecasted trends anticipated prior to the impact of the virus. Across Ramsey County, it is anticipated that from the 90,041 people employed locally in high contact-intensity roles during the fourth quarter of 2020 will see a dramatic drop to just 81,982 by the first quarter of 2021, and then gradually rise through the third quarter of 2022 to return to a similar annual growth rate for these positions that was anticipated prior to the pandemic. These occupations listed in the table above were forecast to grow across Ramsey County by 0.2% annually over the next five years, but will likely only grow by about 0.1% due to the impacts of COVID-19. Specific statistics to local occupational impacts of COVID-19 are not possible to compute at zip code levels, but an estimated drop from 0.4% growth formerly forecast for St. Paul's East Side high contact-intensity roles down to about 0.2% growth overall in these positions is a reasonable estimated impact.

Baseline High Contact-Intensity Occupation Employment 5-Year Forecast on St. Paul's East Side



Source: JobsEQ®, Data as of 2020Q1. The shaded areas of the graph represent national recessions.

COVID-19-Impacted High Contact-Intensity Occupation Employment 5-Year Forecast in Ramsey County

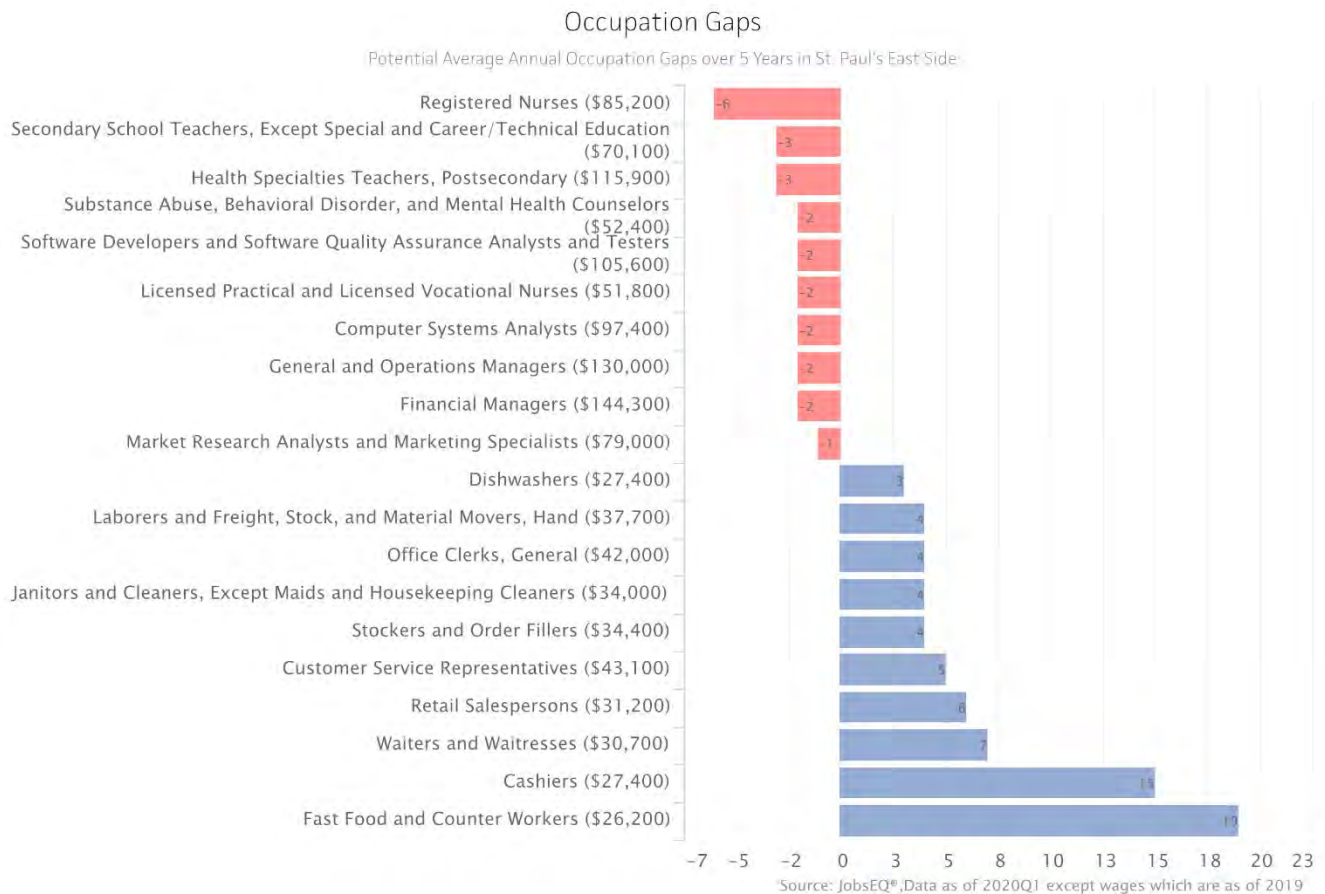


Source: JobsEQ®, Data as of 2020Q1. The shaded areas of the graph represent national recessions.

Mid-Term Occupational Impacts

Estimation of mid-term and long-term recovery of critical local occupations is based on our most reasonable hypothesis given current conditions. On St. Paul’s East Side, an analysis of local labor market occupational gaps as of the first quarter of 2020 showed that there was a shortage of local Nurses, High School Teachers, Postsecondary Health Teachers, Mental Health Counselors, IT Workers, and Managers. Based on forecasted growing demand for health, education, tech, and remote work-friendly management positions, these occupations of shortage are likely to rebound and grow in demand as the pandemic subsides, possibly beyond initial forecasts. All of the top ten positions of highest forecasted talent shortage over the next five years pay wages of \$50,000 per year, and require an Associate’s Degree or higher.

Conversely, the ten positions forecast to have the highest surplus of talent as of the first quarter of 2020 all require less than a high school diploma on average, and pay under \$45,000 per year. Eight out of ten of these positions typically cannot be done remotely, and six out of ten of these positions are considered high contact-intensity. Given the impacts of the COVID-19 pandemic on local industry, these occupations of anticipated high talent excess will likely decline in overall local demand and shift dramatically in how work is done on a daily basis.



Shifting Opportunities

An analysis of current opportunities on St. Paul's East Side reveals that approximately 50% of all jobs offered in the community are non-remote, and just 15% of positions are able to be made fully remote. The remaining positions (35%) may be able to function as partially-remote, but will still require in-person activities.

Remote, Partial, and Non-Remote Jobs by Place of Employment, St. Paul's East Side, 2020Q1

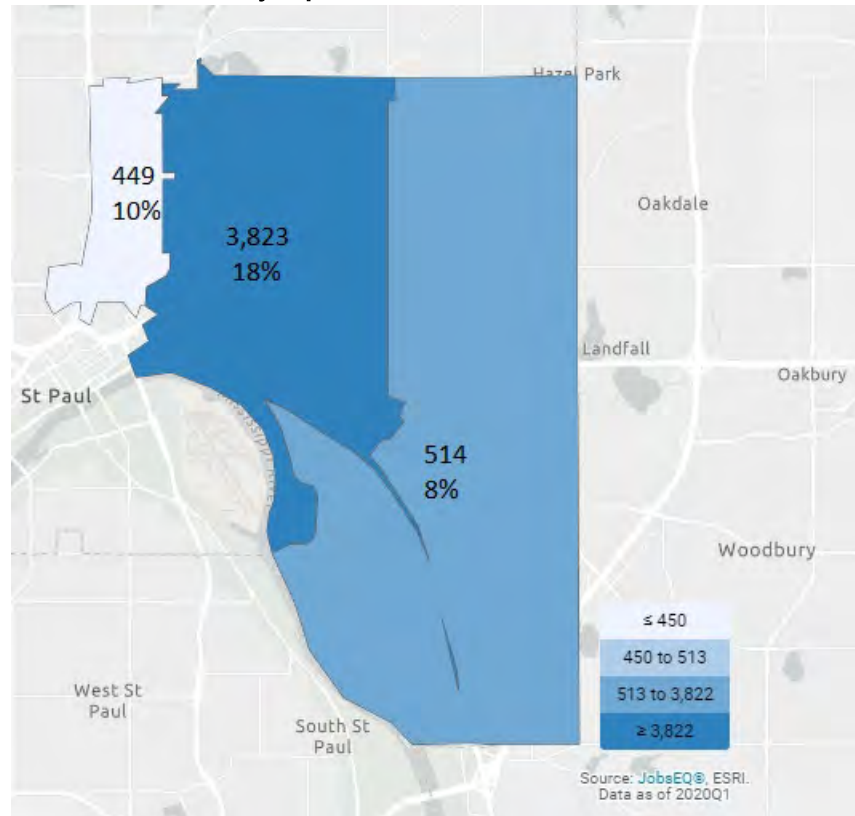
East Side	55130	55106	55119	Entire East Side
Remote	449	3,823	514	4,786
Partially-Remote	1,614	8,147	1,761	11,522
Non-Remote	2,513	9,471	4,495	16,479
All Occupations	4,576	21,441	6,770	32,787

East Side	55130	55106	55119	Entire East Side
Remote	10%	18%	8%	15%
Partially-Remote	35%	38%	26%	35%
Non-Remote	55%	44%	66%	50%
All Occupations	4,576	21,441	6,770	32,787

Remote Work

Across the 32,787 positions employing people on St. Paul's East Side, 15% are either remote full-time or able to be made fully remote without dramatic changes to the occupational role. Across the three zip codes of St. Paul's East Side, 55106 has the greatest share of remote work positions out of the total number of positions employing workers in that zip code (18%). The 55130 zip code, which includes the Dayton's Bluff neighborhood, has the smallest number of remote positions, but it is zip code 55119 that has the smallest share of total jobs that can be fully remote (8%).

Remote Work by Zip Code on St. Paul's East Side, 2020Q1



Analysis of employment by race, ethnicity, and gender reveal that a disproportionately large share of Asian workers living on St. Paul's East Side are employed in remote work roles, whereas all other race and ethnic groups have a smaller share of local workers in these roles. Among the top ten remote work positions by volume of residents employed, all had 30% or more being Asian workers, compared to 27.7% across all types of occupations. These top ten positions also had a disproportionately high volume of non-Hispanic workers. Bookkeeping, Accounting and Auditing Clerks, Personal Service Managers, and Lawyers also have a disproportionately high share of White workers on St. Paul's East Side.

All of the top ten remote work positions by volume in this community require some college or higher, with eight out of the ten positions requiring a Bachelor's degree, but little to no prior experience or on-the-job training. Remote work positions on St. Paul's East Side pay an average annual salary of \$97,700 compared to \$59,800 across all local employment. Overall, remote work positions on St. Paul's East Side are forecast to grow by an average of 0.1% annually over the next five years, about 0.2 percentage points lower than overall expected employment growth in the community.

Demographics of Remote Work Talent by Occupation and Place of Residence on St. Paul's East Side, 2020Q1

SOC	Occupation	Total Empl	White	Black	American Indian	Asian	Pacific Islander	Two or More Races	Non-Hispanic/Latino	Hispanic or Latino (of any race)	Male	Female
43-3031	Bookkeeping, Accounting, and Auditing Clerks	561	59.5%	8.2%	0.2%	30.5%	0.0%	1.6%	94.0%	6.0%	10.7%	89.3%
13-1198	Project Management Specialists and Business Operations Specialists, All Other	348	42.6%	9.2%	0.8%	45.3%	0.0%	1.9%	95.2%	4.8%	40.6%	59.4%
13-2011	Accountants and Auditors	253	43.9%	7.5%	0.2%	46.8%	0.0%	1.6%	96.0%	4.0%	36.8%	63.2%
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	239	18.1%	3.0%	0.1%	78.0%	0.0%	0.8%	97.8%	2.2%	80.3%	19.7%
11-9198	Personal Service Managers / Entertainment and Recreation Managers, All Other	229	56.1%	8.1%	0.3%	33.8%	0.0%	1.7%	95.4%	4.6%	62.4%	37.6%
15-1211	Computer Systems Analysts	192	30.5%	6.7%	0.1%	60.8%	0.0%	1.8%	96.3%	3.7%	58.3%	41.7%
11-3031	Financial Managers	178	48.8%	8.1%	0.2%	40.5%	0.0%	2.4%	94.8%	5.2%	44.9%	55.1%
13-1111	Management Analysts	172	42.0%	6.4%	0.1%	50.2%	0.0%	1.3%	96.2%	3.8%	56.3%	43.7%
23-1011	Lawyers	134	62.3%	6.8%	0.2%	29.1%	0.0%	1.6%	97.5%	2.5%	61.9%	38.1%
13-1161	Market Research Analysts and Marketing Specialists	126	48.8%	5.4%	0.0%	44.9%	0.0%	0.8%	96.8%	3.2%	41.9%	58.1%
95-0300	Remote Jobs	3,609	48.8%	8.2%	0.2%	40.9%	0.0%	1.7%	95.6%	4.4%	46.6%	53.4%
00-0000	Total - All Occupations	59,446	52.1%	16.4%	0.7%	27.7%	0.0%	3.0%	88.1%	11.9%	52.8%	47.2%

Note: Employment estimates as of 2020Q1 by place of residence, derived from the Chmura Industry/Occupation Matrix and industry employment data from the Quarterly Census of Employment and Wages (QCEW) provided by the Bureau of Labor Statistics.

Wages, Forecast, and Experience Requirements of Remote Work Talent by Occupation and Place of Residence on St. Paul's East Side, 2020Q1

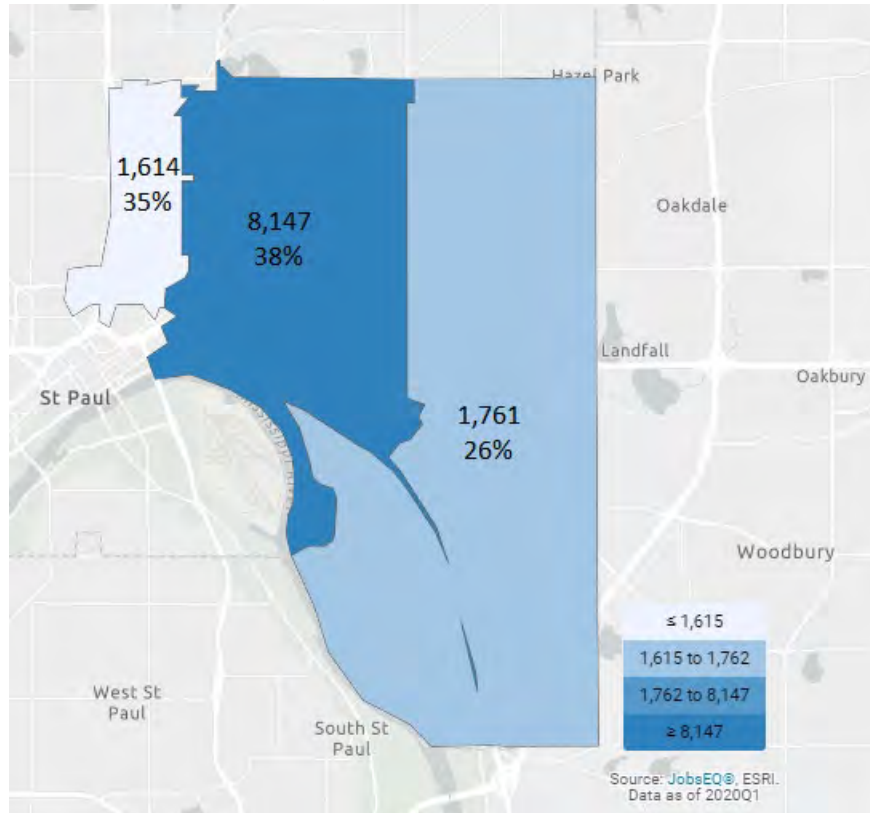
SOC		Avg Ann Wages	Forecast Ann Growth	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$47,800	-0.8%	Some college, no degree	None	Moderate-term on-the-job training
13-1198	Project Management Specialists and Business Operations Specialists, All Other	\$77,400	0.2%	Bachelor's degree	None	None
13-2011	Accountants and Auditors	\$76,000	0.1%	Bachelor's degree	None	None
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	\$105,600	0.3%	Bachelor's degree	None	None
11-9198	Personal Service Managers / Entertainment and Recreation Managers, All Other	\$134,900	0.1%	Bachelor's degree	Less than 5 years	None
15-1211	Computer Systems Analysts	\$97,400	0.2%	Bachelor's degree	None	None
11-3031	Financial Managers	\$144,300	1.0%	Bachelor's degree	5 years or more	None
13-1111	Management Analysts	\$91,500	0.3%	Bachelor's degree	Less than 5 years	None
23-1011	Lawyers	\$128,600	0.5%	Doctoral or professional degree	None	None
13-1161	Market Research Analysts and Marketing Specialists	\$79,000	1.1%	Bachelor's degree	None	None
	Remote Jobs	\$97,700	0.1%	n/a	n/a	n/a
	Total - All Occupations	\$59,800	0.3%	n/a	n/a	n/a

Note: Average Annual Wages as of 2019 by the Bureau of Labor Statistics and imputed by Chmura as necessary. Forecast employment growth uses projections from the Bureau of Labor Statistics for 2016-2026, adapted for regional growth patterns by Chmura.

Partially-Remote Work

Of the 32,787 positions employing people on St. Paul's East Side, 35% can be served at least partially remotely. Across the three zip codes of St. Paul's East Side, 55106 has the greatest share of partially-remote work positions out of the total number of positions employing workers in that zip code (38%). The 55130 zip code, which includes the Dayton's Bluff neighborhood, has the smallest number of partially-remote positions, but it is zip code 55119 that has the smallest share of total jobs that could become at least partially-remote (26%).

Partially-Remote Work by Zip Code on St. Paul's East Side, 2020Q1



Distribution of employment in partially-remote occupations by race, ethnicity, and gender is relatively balanced to overall employment rates, though Asian workers hold a greater share of partially-remote roles in comparison to other racial groups. However, Hispanic and Latinx workers are underrepresented in all of the partially-remote occupations that employ the largest number of East Side residents. Women are about two times more likely to hold partially-remote roles than men (68.9% of partially-remote jobs are held by women on St. Paul's East Side).

Nine of the top ten partially-remote work positions by volume in this community require just a high school diploma (except for General and Operations Managers, which generally requires a Bachelor's degree) and little or no previous work experience. Partially-remote work positions on St. Paul's East Side pay on average about \$35,000 less than remote work positions (but about \$3,000 more than the overall average salary), at an average annual salary of \$62,200. Overall, partially-remote work positions on St. Paul's East Side are forecast to grow by an average of 0.5% annually over the next five years, about 0.2 percentage points more than overall expected employment growth in the community.

Demographics of Partially-Remote Work Talent by Occupation and Place of Residence on St. Paul's East Side, 2020Q1

SOC	Occupation	Total Empl	White	Black	American Indian	Asian	Pacific Islander	Two or More Races	Non-Hispanic/Latino	Hispanic or Latino (of any race)	Male	Female
31-1122	Personal Care Aides	2,480	32.7%	23.9%	0.7%	40.4%	0.1%	2.2%	89.4%	10.6%	13.4%	86.6%
43-9061	Office Clerks, General	992	43.8%	13.5%	0.4%	40.3%	0.0%	2.0%	89.9%	10.1%	16.2%	83.8%
43-6014	Secretaries and Administrative Assistants*	646	64.3%	11.1%	0.5%	21.7%	0.0%	2.3%	93.8%	6.2%	6.3%	93.7%
11-1021	General and Operations Managers	625	66.3%	8.5%	0.3%	21.4%	0.0%	3.6%	94.3%	5.7%	67.8%	32.2%
43-1011	Supervisors of Office and Administrative Support Workers	346	59.4%	16.2%	0.6%	21.1%	0.1%	2.7%	93.9%	6.1%	30.0%	70.0%
43-4171	Receptionists and Information Clerks	325	53.7%	17.9%	0.5%	24.4%	0.1%	3.4%	89.5%	10.5%	10.0%	90.0%
41-4012	Sales Representatives, Wholesale and Manufacturing**	280	67.7%	7.4%	0.2%	22.3%	0.0%	2.3%	95.1%	4.9%	71.3%	28.7%
21-1093	Social and Human Service Assistants	217	44.3%	27.9%	1.5%	22.2%	0.0%	4.1%	92.3%	7.7%	19.8%	80.2%
43-6011	Executive Secretaries and Executive Administrative Assistants	205	65.6%	10.9%	0.5%	20.7%	0.1%	2.3%	93.8%	6.2%	6.4%	93.6%
41-3091	Sales Representatives of Services***	196	62.9%	9.0%	0.1%	26.2%	0.0%	1.8%	94.4%	5.6%	68.1%	31.9%
Partially-Remote Jobs		10,976	50.6%	15.6%	0.5%	30.8%	0.0%	2.5%	92.2%	7.8%	31.1%	68.9%
Total - All Occupations		59,446	52.1%	16.4%	0.7%	27.7%	0.0%	3.0%	88.1%	11.9%	52.8%	47.2%

Note: Employment estimates as of 2020Q1 by place of residence, derived from the Chmura Industry/Occupation Matrix and industry employment data from the Quarterly Census of Employment and Wages (QCEW) provided by the Bureau of Labor Statistics. *Except Legal, Medical, and Executive **Except Technical and Scientific Products ***Except Advertising, Insurance, Financial Services, and Travel

Wages, Forecast, and Experience Requirements of Partially-Remote Work Talent by Occupation and Place of Residence on St. Paul's East Side, 2020Q1

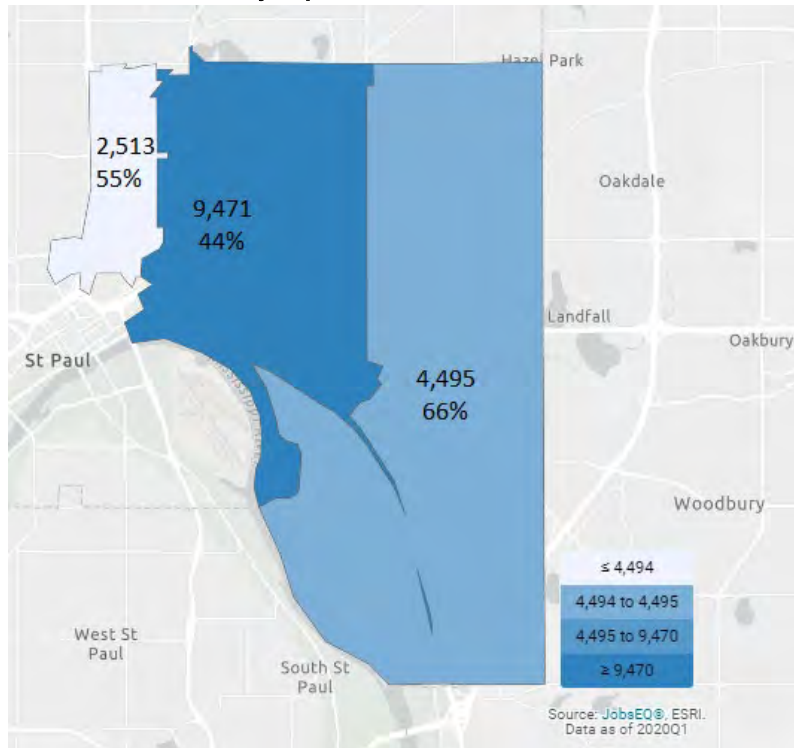
SOC		Avg Ann Wages	Forecast Ann Growth	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
31-1122	Personal Care Aides	\$28,900	2.7%	High school diploma or equivalent	None	Short-term on-the-job training
43-9061	Office Clerks, General	\$42,000	-0.7%	High school diploma or equivalent	None	Short-term on-the-job training
43-6014	Secretaries and Administrative Assistants*	\$43,700	-1.3%	High school diploma or equivalent	None	Short-term on-the-job training
11-1021	General and Operations Managers	\$130,000	0.2%	Bachelor's degree	5 years or more	None
43-1011	Supervisors of Office and Administrative Support Workers	\$66,900	-0.5%	High school diploma or equivalent	Less than 5 years	None
43-4171	Receptionists and Information Clerks	\$33,300	0.3%	High school diploma or equivalent	None	Short-term on-the-job training
41-4012	Sales Representatives, Wholesale and Manufacturing**	\$83,200	-0.3%	High school diploma or equivalent	None	Moderate-term on-the-job training
21-1093	Social and Human Service Assistants	\$38,100	1.7%	High school diploma or equivalent	None	Short-term on-the-job training
43-6011	Executive Secretaries and Executive Administrative Assistants	\$62,200	-2.7%	High school diploma or equivalent	Less than 5 years	None
41-3091	Sales Representatives of Services***	\$69,200	0.0%	High school diploma or equivalent	None	Moderate-term on-the-job training
Partially-Remote Jobs		\$62,200	0.5%	n/a	n/a	n/a
Total - All Occupations		\$59,800	0.3%	n/a	n/a	n/a

Note: Average Annual Wages as of 2019 by the Bureau of Labor Statistics and imputed by Chmura as necessary. Forecast employment growth uses projections from the Bureau of Labor Statistics for 2016-2026, adapted for regional growth patterns by Chmura. *Except Legal, Medical, and Executive **Except Technical and Scientific Products ***Except Advertising, Insurance, Financial Services, and Travel

Non-Remote Work

Only half (50%) of all positions employing workers on St. Paul's East Side as of 2020Q1 cannot be made remote or partially-remote. Zip code 55119 has the largest share of non-remote occupations (66%) followed by 55130 (55%) and 55106 (44%). These 16,479 positions are some of the most vulnerable to pandemic impacts.

Non-Remote Work by Zip Code on St. Paul's East Side, 2020Q1



Although about half of all positions employing people that work on St. Paul's East Side are non-remote, 75% of St. Paul's East Side residents work in non-remote positions—whether they work in the neighborhood or commute to work outside of the neighborhood they live in. A greater share of Black, African American, Hispanic, and residents of two or more races work in non-remote occupations on St. Paul's East Side. Male residents account for 58.6% of non-remote employees who live on St. Paul's East Side, compared to 52.8% of workers overall. Food service, retail, warehouse labor, customer service, and in-home care positions dominate the top non-remote work positions by employment. All but three positions that are in the top ten by employment among residents of St. Paul's East Side (Retail Salespersons, Waiters and Waitresses, and Registered Nurses) employ a disproportionately high volume of Black and African American workers.

Nine of the top ten partially-remote work positions by volume in this community require a high school diploma or less (except for Registered Nurses, which requires either an Associate's or Bachelor's degree) and little or no previous work experience. The one occupation in the top ten employment by volume requiring an Associate's or Bachelor's degree—Registered Nurses—is predominantly held by Asian residents (41%) of St. Paul's East Side. This is the only occupation of the top ten that pays a living wage for a household of three. Non-remote positions on St. Paul's East Side pay about \$12,500 less than the overall average, with non-remote roles paying average annual salary of \$47,200. Overall, partially-remote work positions on St. Paul's East Side are forecast to grow by an average of 0.3% annually over the next five years, in line with the overall expected employment growth for residents in the community.

Demographics of Non-Remote Work Talent by Occupation and Place of Residence on St. Paul's East Side, 2020Q1

SOC	Occupation	Total Empl	White	Black	American Indian	Asian	Pacific Islander	Two or More Races	Non-Hispanic/Latino	Hispanic or Latino (of any race)	Male	Female
35-3023	Fast Food and Counter Workers	1,893	46.7%	18.7%	0.7%	29.2%	0.0%	4.8%	90.7%	9.3%	36.8%	63.2%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,481	51.5%	22.7%	0.8%	21.5%	0.0%	3.5%	83.5%	16.5%	60.7%	39.3%
41-2011	Cashiers	1,283	41.4%	18.1%	0.7%	35.4%	0.0%	4.3%	88.1%	11.9%	27.2%	72.8%
41-2031	Retail Salespersons	1,192	56.4%	14.9%	0.4%	25.0%	0.0%	3.2%	91.2%	8.8%	49.6%	50.4%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,095	53.1%	25.6%	0.6%	17.3%	0.1%	3.4%	88.6%	11.4%	77.0%	23.0%
43-4051	Customer Service Representatives	1,019	48.0%	19.5%	0.5%	27.9%	0.0%	4.1%	90.6%	9.4%	34.0%	66.0%
35-3031	Waiters and Waitresses	913	45.7%	11.5%	0.5%	37.1%	0.0%	5.2%	88.5%	11.5%	27.1%	72.9%
31-1121	Home Health Aides	888	33.5%	39.9%	0.5%	24.1%	0.0%	2.0%	91.6%	8.4%	10.9%	89.1%
35-2014	Cooks, Restaurant	858	43.0%	19.7%	0.7%	33.4%	0.0%	3.2%	80.1%	19.9%	56.1%	43.9%
29-1141	Registered Nurses	807	45.4%	12.0%	0.3%	41.0%	0.0%	1.3%	96.8%	3.2%	10.4%	89.6%
Non-Remote Jobs		44,861	52.7%	17.3%	0.8%	25.9%	0.0%	3.3%	86.5%	13.5%	58.6%	41.4%
Total - All Occupations		59,446	52.1%	16.4%	0.7%	27.7%	0.0%	3.0%	88.1%	11.9%	52.8%	47.2%

Note: Employment estimates as of 2020Q1 by place of residence, derived from the Chmura Industry/Occupation Matrix and industry employment data from the Quarterly Census of Employment and Wages (QCEW) provided by the Bureau of Labor Statistics.

Wages, Forecast, and Experience Requirements of Non-Remote Work Talent by Occupation and Place of Residence on St. Paul's East Side, 2020Q1

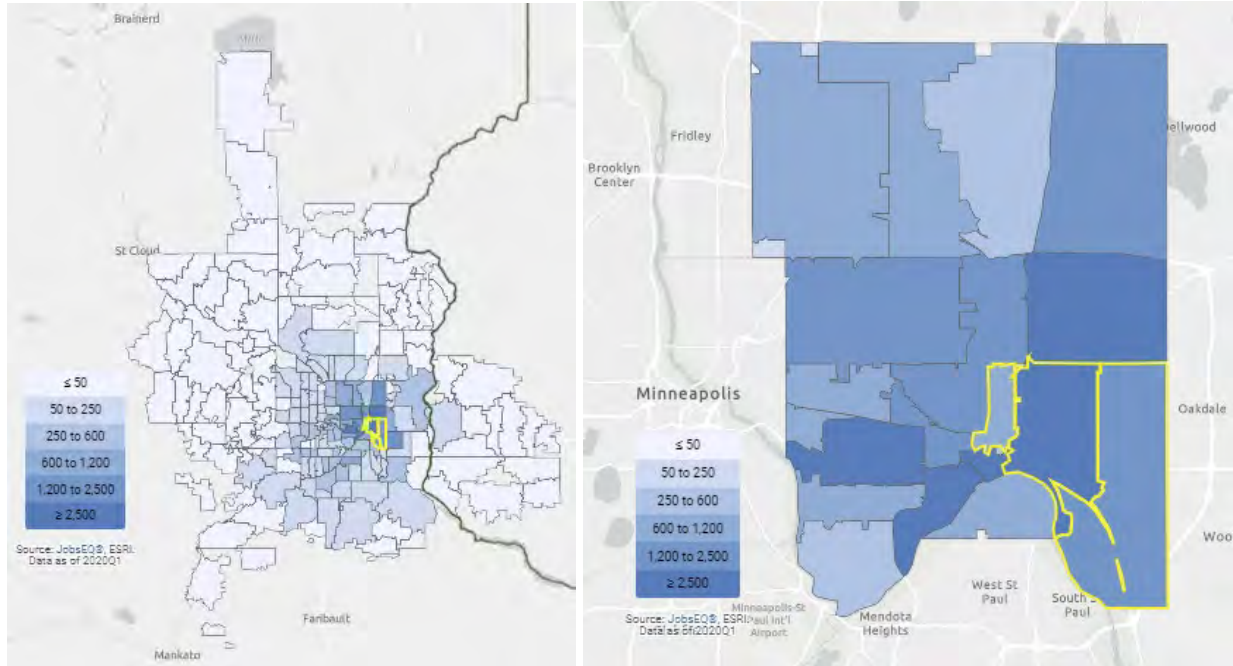
SOC	Occupation	Total Empl	Avg Ann Wages	Forecast Ann Growth	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
35-3023	Fast Food and Counter Workers	1,893	\$26,200	0.9%	None	None	Short-term on-the-job training
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,481	\$34,000	0.2%	None	None	Short-term on-the-job training
41-2011	Cashiers	1,283	\$27,400	-0.7%	None	None	Short-term on-the-job training
41-2031	Retail Salespersons	1,192	\$31,200	-0.7%	None	None	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,095	\$37,700	-0.2%	None	None	Short-term on-the-job training
43-4051	Customer Service Representatives	1,019	\$43,100	-0.7%	High school diploma or equivalent	None	Short-term on-the-job training
35-3031	Waiters and Waitresses	913	\$30,700	0.1%	None	None	Short-term on-the-job training
31-1121	Home Health Aides	888	\$28,900	2.8%	High school diploma or equivalent	None	Short-term on-the-job training
35-2014	Cooks, Restaurant	858	\$32,600	1.5%	None	Less than 5 years	Moderate-term on-the-job training
29-1141	Registered Nurses	807	\$85,200	1.3%	Bachelor's degree	None	None
Non-Remote Jobs		44,861	\$47,200	0.3%	n/a	n/a	n/a
Total - All Occupations		59,446	\$59,800	0.3%	n/a	n/a	n/a

Note: Average Annual Wages as of 2019 by the Bureau of Labor Statistics and imputed by Chmura as necessary. Forecast employment growth uses projections from the Bureau of Labor Statistics for 2016-2026, adapted for regional growth patterns by Chmura.

Commute Shed

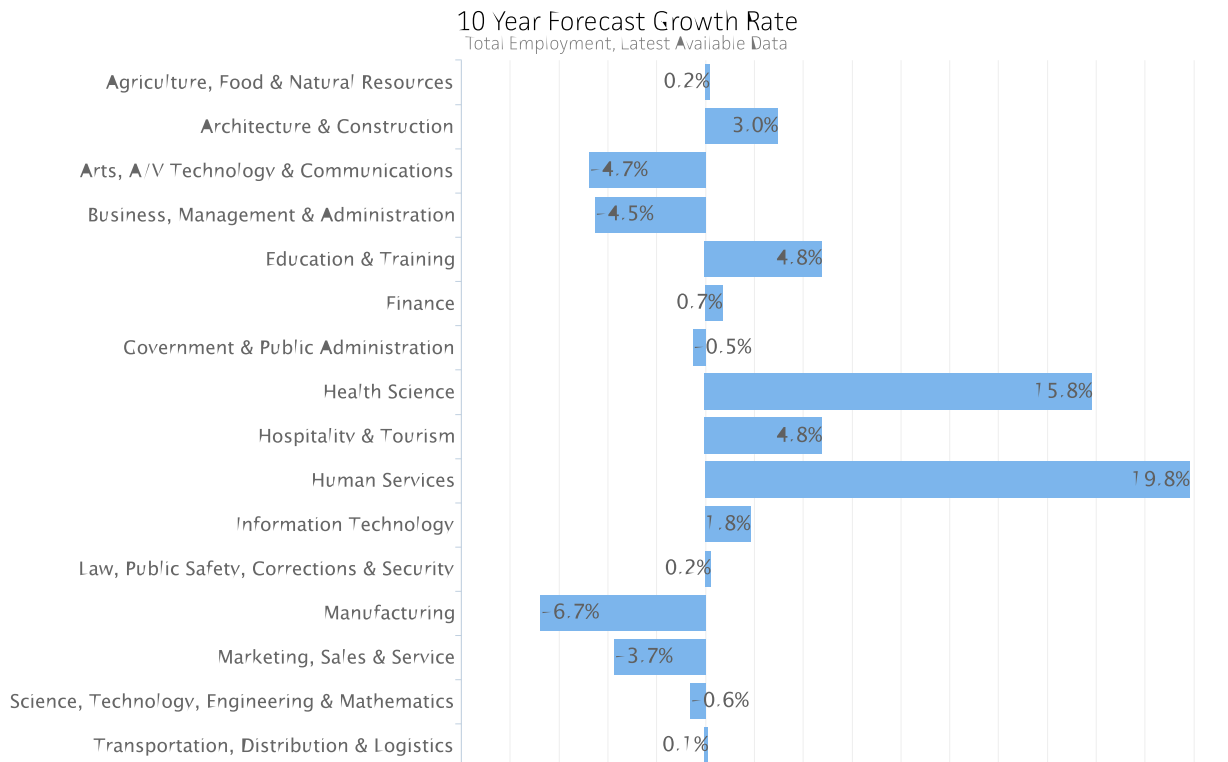
A large share of residents of St. Paul's East Side work outside of their neighborhood. In all, 9,503 residents of St. Paul's East Side also work in that community, which is about 16% of local residents. Of all Ramsey County residents, 55.3% also work in Ramsey County. Just 1.1% of Ramsey County residents work in a state other than Minnesota.

Zip Code of Place of Work for Residents of St. Paul's East Side



Future Growth by Cluster

Of sixteen career clusters used by Career and Technical Education (CTE), ten are expected to grow and six are expected to decline over the next ten years. The clusters expecting the greatest growth are Human Services (19.8%), Health Science (15.8%), and Education and Training (4.8%). In contrast, Manufacturing (-6.7%) and Arts, Audio/Video Technology and Communications (-4.7%) are anticipating the greatest declines in overall employment.



Emerging Career Paths

Online job posting data can tell us a lot about employer demand for certain skills, certifications, qualifications, and occupational competencies. There is rich data available by city, county, and even by specific employer. However, it can be challenging to pinpoint exactly which positions advertised would be physically located in a specific geography without a complete address being included in a job post.

Despite these limitations, there are still a sufficient number of job postings that do include an address or a zip code for the location of the job opportunity being advertised. Looking at positions in this way will favor employers that have the particular practice of including the business' physical location in the posting. Typically, staffing agencies and temp agencies are some of the more likely companies to have this standard practice. Although attempting to use these approximation for local job opportunities may not be a complete picture of all demand in the community, it can give a glimpse into the trending opportunities and how they compare to opportunities in the past.

In St. Paul during the first three months of the COVID-19 pandemic,⁷ there were 219 new jobs advertised specifying one of the three zip codes of St. Paul's East Side. This volume of new posted positions was an increase of about 7.4% of positions specifically indicating this neighborhood in the same three months in 2019. The top three positions advertised by volume—and with the highest growth in job postings from the prior year—included Application Software Developers, Customer Service Representatives, and Retail Salespersons. Other positions trending locally include Social and

⁷ March 15-June 15, 2020.

Community Service Managers. Loan Interviewers and Clerks (specifically Mortgage), Bookkeepers, and Accountants.

Top Emerging Occupations on St. Paul's East Side, March 15-June 15, 2020

1. **Software Developers, Applications** (ETL Developer, SQL Developer, JavaScript/React Software Engineer, UX Writer, .Net Developer, SSIS Developer)
2. **Customer Service Representatives** (Service Agent, Service Advisor, Customer Service Associate)
3. **Retail Salespersons** (Entry Level Retail Merchandising Associate, Specialty Sales—Beauty or Tech, Sales Representative, Lot Associate)
4. **Social and Community Service Managers** (Board Member, Nonprofit Executive Director, Lead Staff)
5. **Loan Interviewers and Clerks** (Loan Specialist, Mortgage Loan Processor, Post Closing Specialist, Loan Servicing Support)
6. **Bookkeeping, Accounting, and Auditing Clerks** (Accounts Payable Clerk, Accounts Rep, Billing Clerk, Client Banking Support, Accounting Clerk)
7. **Accountants** (Staff Accountant, Senior Accountant, Tax Supervisor, Tax Manager/CPA)

The certifications and technical skills in demand locally match in particular to the financial services occupations above, with Certified Personal Accountant, Board Certification appearing in local job postings during this period while they were absent in the three months prior to COVID-19 and a full year prior. Skills like operations, compliance, innovation, and customer experience were mentioned in job postings as required competencies for candidates in dramatically higher volumes from March 15-June 15, 2020 in comparison to early 2020 or any point in 2019.

Top Emerging Skills on St. Paul's East Side in Order of Frequency in Job Postings, March 15-June 15, 2020

1. Operations (+155% from pre-COVID-19)
2. Compliance (+733% from pre-COVID-19)
3. Innovation (+227% from pre-COVID-19)
4. Customer Experience (+333% from pre-COVID-19)
5. Best Practices—Customer Service and IT roles (+227% from pre-COVID-19)
6. SQL (+114% from pre-COVID-19)
7. Servers (+200% from pre-COVID-19)
8. Architecture (+150% from pre-COVID-19)
9. Knowledge Transfer—ETL (+73% from pre-COVID-19)
10. Software Development (+350% from pre-COVID-19)
11. Mobile Applications (+1,000% from pre-COVID-19)
12. Systems Development Life Cycle (+750% from pre-COVID-19)

Accessible Career Pathways

Local Careers for People with an Associate's Degree or Less

Taking a holistic look at high-wage, accessible career opportunities on St. Paul's East Side reveal a large number of business and administrative opportunities that are 1) uniquely concentrated in this community, 2) have seen high historic employment growth, 3) are trending in job postings since March 2020, and 3) would be able to be done remotely or with low contact-intensity. Several of these high-opportunity entry-level careers already have large numbers of Black, Indigenous, and East Side residents of color working in these roles, including Customer Service Representatives and Licensed Practical and Licensed Vocational Nurses.

For example, **Bookkeeping, Accounting, and Auditing Clerks** are found on St. Paul's East Side in greater numbers than would typically be expected for a community of this size in Minnesota (11% more, or an LQ of 1.11). Over the next five years, about 198 Clerk positions will need to be filled, primarily due to retirements and job transitions. About 40.5% of local East Side residents working in these roles are Black, Indigenous, or People of Color, and usually these roles require some training or partial college education with moderate on-the-job training.

Customer Service Representatives

Titles Used: Customer Service Associate, Service Agent, Service Advisor, Customer Experience Representative

Employers: DHL International, Duane Reade, Merit Chevrolet, Walgreens, Cintas

Supervisors of Office and Administrative Support Workers

Titles Used: Lead Customer Service Advisor, Warranty Manager, Fulfillment Lead, Service and Engagement Team Leader, Lead Cashier

Employers: Jiffy Lube, MacQueen Equipment Group, Target Corporation, Merit Chevrolet, Holiday Stationstores

Licensed Practical and Licensed Vocational Nurses (LPNs)

Titles Used: LPN, LPN Care Associate

Employers: ResCare, CVS Health, HealthPartners Integrated Home Care, Presbyterian Homes, Volunteers of America

Bookkeeping, Accounting, and Auditing Clerks

Titles Used: Accounts Payable Clerk, Accounts Payable Rep, Billing Clerk, Entry Level Account Clerk, Client Banking Support

Employers: Cintas, Robert Half International, Express Employment Professionals, Benedictine Health System, Cub Foods

Executive Administrative Assistants

Titles Used: Executive Assistant, Executive Associate, Principal Administrative Specialist, Senior Administrative Assistant

Employers: ResCare, Salvation Army, Cintas, Metropolitan Council, Trilium Health Partners

Services Sales Representatives

Titles Used: Route Service Sales Representative, Sales Rep, Customer Success Manager, Enterprise Account Executive, Senior Care Home Care Consultant (Sales and Marketing), Account Consultant

Employers: Platinum Supplemental Insurance, Comcast Corporation, Home Instead, Cintas, Express Employment Professionals

St. Paul's East Side Local High-Opportunity Careers Requiring an Associate's Degree or Less

SOC	Occupation	Current				Historical High Ann % Empl. Growth	5-Year Forecast		Considerations				Education & Experience		
		2020Q1 Empl	High Wage (Avg Ann Wages)*	High Local Concentration (LQ)	Low Historic Unemployment Rate		High Total Demand (Replacing Over 50% of 2020Q1 Empl in 5 Yrs)	Ann % Growth	Able to Be Remote (R)	Low Contact Intensity (L)	Trending in Job Postings Locally During Pandemic (T)	Higher than Local Resident Average BIPOC Empl. (over 47.9%)	Typical Entry-Level Education	Previous Work Experience	Typical On-the- Job Training
43-4051	Customer Service Representatives	561	\$43,100	0.92	3.7%	6.1%	340	-0.7%			T	52.0%	High school diploma or equivalent	None	Short-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	380	\$47,800	1.11	1.8%	2.4%	198	-0.8%	R	L	T	40.5%	Some college, no degree	None	Moderate-term on-the-job training
43-1011	First-Line Supervisors of Office and Administrative Support Workers	261	\$66,900	0.83	1.8%	3.6%	127	-0.5%		L		40.6%	High school diploma or equivalent	Less than 5 years	None
43-6011	Executive Secretaries and Executive Administrative Assistants	192	\$62,200	1.64	2.5%	-3.4%	70	-2.7%		L		34.4%	High school diploma or equivalent	Less than 5 years	None
29-2061	Licensed Practical and Licensed Vocational Nurses	189	\$51,800	1.28	2.0%	-2.0%	89	1.3%				52.4%	Associate's degree	None	None
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	176	\$69,200	0.81	3.9%	5.9%	111	0.0%				37.1%	High school diploma or equivalent	None	Moderate-term on-the-job training
43-6013	Medical Secretaries and Administrative Assistants	142	\$43,900	1.12	2.4%	5.9%	93	1.3%				33.6%	High school diploma or equivalent	None	Moderate-term on-the-job training
25-2011	Preschool Teachers, Except Special Education	126	\$41,200	1.22	2.5%	4.5%	68	0.6%				46.2%	Associate's degree	None	None

53-3032	Heavy and Tractor-Trailer Truck Drivers	114	\$55,300	0.28	2.8%	4.6%	64	-0.1%		L		44.4%	Postsecondary non-degree award	None	Short-term on-the-job training
43-3021	Billing and Posting Clerks	112	\$45,400	1.13	1.4%	6.2%	64	0.5%		L		38.9%	High school diploma or equivalent	None	Moderate-term on-the-job training
41-1012	First-Line Supervisors of Non-Retail Sales Workers	53	\$87,600	0.65	1.3%	1.8%	22	-0.7%	R	L		35.4%	High school diploma or equivalent	Less than 5 years	None
43-4131	Loan Interviewers and Clerks	53	\$43,700	1.21	3.2%	9.7%	27	0.0%		L	T	43.1%	High school diploma or equivalent	None	Short-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	44	\$54,100	1.44	n/a	2.9%	22	-0.7%		L		37.0%	High school diploma or equivalent	None	Moderate-term on-the-job training
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	44	\$61,700	0.56	1.4%	3.7%	23	0.7%				32.6%	Postsecondary non-degree award	None	Long-term on-the-job training
Total - All Occupations		32,787	\$59,800	1.00	4.0%	2.4%	19,128	0.4%				47.9%			

*Only careers paying an average of \$40,000 or more are included in this table. Occupations paying an average salary higher than the all-occupation average (\$59,800) in the community are highlighted in green. Unemployment rates below 3% are considered low and highlighted in green. Historical annual employment growth rates above 2.4% are considered high and highlighted in green. Forecasted annual employment growth over 0.4% is considered high and highlighted in green.

The job titles and employer data shown in this section is based on content found in jobs newly posted online and explicitly listed as located in the zip codes of the communities comprising St. Paul's East Side. It is not a complete or representative list of job opportunities in the neighborhood, but is offered as a sampling of jobs advertised.⁸ These employers and job postings were identified by the address included by the employer in the job posting; therefore, it only represents jobs by those employers that explicitly included one of the three zip codes for the East Side neighborhood (55106, 55119, or 55130). In some cases, these employers located in the neighborhood may be hiring for positions in other parts of St. Paul.

Local Careers for People with a Bachelor's Degree or Higher

Nearly all of the rising and most promising accessible careers on St. Paul's East Side that typically require a Bachelor's degree or higher can be done remotely. Many of these roles are also in business and financial pathways, which make for well-aligned opportunities for growth from locally-available entry-level opportunities.

For example, **Project Management Specialists and Business Operations Specialists** (also includes the rising job title "Product Specialist") are 54% more concentrated on St. Paul's East Side than an average community of its size in Minnesota, and historically, local unemployment in these roles has been very low (2.8%). Over the next five years, about 202 Project Management Specialist positions will need to be filled due to job growth (about 0.2% anticipated), retirements, and job transitions. About 57.4% of local East Side residents working in these roles are Black, Indigenous, or People of Color, and usually these roles seek fresh talent with a Bachelor's degree and no prior experience needed.

Project Management and Business Operations Specialists (All Other)

Titles Used: Regulatory Coordinator, Occupancy Specialist, Business Analyst (Trainer), Business Development Associate

Employers: Pace Analytical, Thies & Talle Management, Metropolitan Council, Latino Economic Development Corporation, US Bank

Accountants and Auditors

Titles Used: Sr. Accountant, Staff Accountant, Tax Supervisors, Tax Manager/CPA, Tax Senior, Accounting Analyst, Credentialed Tax Professional

Employers: Jobot Inc, Express Employment Professionals, Wells Fargo, 3M Company, Intuit Inc.

Computer Systems Analysts

Titles Used: IT Business Systems Analyst, IT Analyst V, SAP TM Analyst, Oracle Report Developer

Employers: Wells Fargo, 3M Company, Javen Technologies, Apex Systems Inc., Rk Consultancy Services Inc

Software Developers and Software Quality Assurance Analysts/Testers

Titles Used: Software Engineer, UX Writer, Specialist, .Net Developer, SQL Developer, ETL Developer

Employers: Travelers, Oracle, Tata Elxsi Limited, Ledelsea, TechNix Inc, IO Datasphere, Cogent Infotech Corp

Financial Managers

Titles Used: Retail Branch Manager, Credit Portfolio Consultant 2, Assistant Branch Manager, Regional Banking Branch Manager Senior 3, VP Finance and Accounting, Financial and Business Manager

Employers: TCF Bank, Wells Fargo, US Bank, Comcast, NeighborWorks America

Management Analysts

Titles Used: Data Analyst, Business Analyst, IT Business Analyst, BA Lead with PeopleSoft

Employers: Javen Technologies, Cogent Infotech Group, Charter Global, VGB Technologies, TechNix Inc, Revolution Technology

St. Paul's East Side Local High-Opportunity Careers Requiring a Bachelor's Degree or Higher

SOC	Occupation	Current				Historical High Ann % Empl. Growth	5-Year Forecast		Considerations				Education & Experience		
		2020Q1 Empl	High Wage (Avg Ann Wages)	High Local Concentration (LC)	Low Historic Unemployment Rate		High Total Demand (Replacing Over 50% of 2020Q1 Empl in 5 Yrs)	Ann % Growth	Able to Be Remote (R)	Low Contact Intensity (L)	Trending in Job Postings Locally During Pandemic (T)	Higher than Local Resident Average BIPOC Employment (over 47.9%)	Typical Entry- Level Education	Previous Work Experience	Typical On-the- Job Training
13-1198	Project Management Specialists and Business Operations Specialists, All Other	411	\$77,400	1.54	2.8%	4.4%	202	0.2%	R			57.4%	Bachelor's degree	None	None
13-2011	Accountants and Auditors	351	\$76,000	1.21	1.6%	5.0%	166	0.1%	R		T	56.1%	Bachelor's degree	None	None
15-1211	Computer Systems Analysts	265	\$97,400	2.09	1.4%	4.1%	99	0.2%	R	L		69.5%	Bachelor's degree	None	None
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	246	\$105,600	0.82	1.3%	1.8%	91	0.3%	R	L	T	81.9%	Bachelor's degree	None	None
11-3031	Financial Managers	234	\$144,300	1.67	1.3%	9.4%	107	1.0%	R			51.2%	Bachelor's degree	5 years or more	None
13-1111	Management Analysts	193	\$91,500	1.08	2.9%	4.2%	95	0.3%	R	L		58.0%	Bachelor's degree	Less than 5 years	None
13-1161	Market Research Analysts and Marketing Specialists	187	\$79,000	1.27	2.6%	11.4%	112	1.1%	R	L		51.2%	Bachelor's degree	None	None
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	157	\$91,100	1.58	1.7%	7.6%	67	0.0%	R			54.3%	Bachelor's degree	None	None
11-3021	Computer and Information Systems Managers	141	\$152,300	1.52	1.2%	6.0%	56	0.1%	R	L		61.7%	Bachelor's degree	5 years or more	None

11-9151	Social and Community Service Managers	100	\$82,600	2.86	2.2%	4.6%	55	1.6%		L	T	35.4%	Bachelor's degree	Less than 5 years	None
15-1244	Network and Computer Systems Administrators	100	\$90,000	1.35	2.5%	2.9%	36	0.1%	R			54.5%	Bachelor's degree	None	None
Total - All Occupations		32,787	\$59,800	1.00	4.0%	2.4%	19,128	0.4%				47.9%			

*Only careers paying an average of \$40,000 or more are included in this table. Occupations paying an average salary higher than the all-occupation average (\$59,800) in the community are highlighted in green. Unemployment rates below 3% are considered low and highlighted in green. Historical annual employment growth rates above 2.4% are considered high and highlighted in green. Forecasted annual employment growth over 0.4% is considered high and highlighted in green.

The job titles and employer data shown in this section is based on content found in jobs newly posted online and explicitly listed as located in the zip codes of the communities comprising St. Paul's East Side. It is not a complete or representative list of job opportunities in the neighborhood, but is offered as a sampling of jobs advertised.⁹ These employers and job postings were identified by the address included by the employer in the job posting; therefore, it only represents jobs by those employers that explicitly included one of the three zip codes for the East Side neighborhood (55106, 55119, or 55130). In some cases, these employers located in the neighborhood may be hiring for positions in other parts of St. Paul.

Retooling and Reimagining Work

The following section highlights the critical skills in demand on St. Paul's East Side, as identified by employers in jobs advertised online in the community. This section's data is based on the content found in jobs newly posted online by employers that were listed in DatabaseUSA as having a location in the zip codes of the communities comprising St. Paul's East Side. This list was cross-checked with a broad search of all job postings indicating the position was located in one of the zip codes of the East Side (296 employers identified in this way). This list is not a complete or representative list of job opportunities in the neighborhood, but is offered as a sampling of jobs advertised.¹⁰ These employers and job postings were identified by the address of the employer (55106, 55119, or 55130). In some cases, these employers located in the neighborhood may be hiring for positions in other parts of St. Paul.

Of the 1,843 employers identified as located within St. Paul's East Side, about 200 advertised jobs locally from March 16 through July 31, 2020. More broadly, between March 16 and July 31, 2020, about 260 employers advertised jobs in the region that explicitly included local zip codes, but may not have a physical location in the community (i.e. a staffing agency or chain that is headquartered elsewhere but recruiting in that specific zip code). The next two sections highlight the foundational skills in demand among local employers, and the skill transferability opportunities of the local talent supply.

Foundational Skills

Much research has gone into determining what skills are considered essential in the emerging digital economy. According to a report published by Burning Glass Technologies and the Business Higher Education Forum in late 2019 titled "The New Foundational Skills of The Digital Economy: Developing the Professionals of the Future" classified 14 essential skills aligning to three categories: Human Skills, Business Enablers, and Digital Building Blocks.¹¹ This research found that all three categories of New Foundational Skills are essential across every industry and job type, and that all of these skills are able to be developed through training and education.

In addition, positions that require at least one of the New Foundational Skills pay more on average. Nationwide, jobs requesting at least one of the New Foundational Skills advertised an average salary of \$61,000, which is \$8,000 higher than other jobs that do not require any of these foundational skills. Each of the skills in the Digital Building Block and Business Enabler skill groups include a further salary premium from 7% to 38% higher than the overall average. By developing a range of New Foundational Skills, this study found that job-seekers could increase their earning power and productivity by growing their abilities in all three skill areas. Burning Glass Technologies estimates that fewer than one in five job-seekers they analyzed had some skills developed in each of the three areas. To further clarify within the Business Enablers group, we have added a 15th Foundational Skill called "Digital Skills," which includes social media, search engine marketing, web analytics, content marketing, email, mobile campaigns, strategy and planning, social selling, video production, and similar related skillsets. For a full list of the New Foundational Skills, see below.

¹¹ Burning Glass Technologies, BHEF. 2019. The New Foundational Skills of the Digital Economy: Developing the Professionals of the Future." Accessed 7/30/2020 at https://www.burning-glass.com/wp-content/uploads/New_Foundational_Skills.pdf

Defining the New Foundational Skills

High-Demand Human Skills

Analytical Skills - Analyze information, problem solve, and make decisions - detect patterns, brainstorming, observing, interpreting data, integrating new information, theorizing, and making decisions based on multiple factors.

Collaboration—Open communication, reaching consensus, giving credit, identifying obstacles and addressing problems cooperatively, focus on group goals. Examples, resilience and respect for diversity.

Critical Thinking— Refers to evaluating information and then making a decision based on your findings. Examples: Process management, ongoing improvement, auditing, benchmarking, big data analytics, business intelligence, calculating, case analysis, causal relationships, classifying, computing, decision making, diagnostics, recording keeping, evaluating, prioritization, troubleshooting, attention to detail.

Creativity - Could include ability to spot trends, come up with innovative solutions, solve for big problems. Examples: Budgeting, brainstorming, optimization, predictive modeling, problem-solving, restructuring, strategic planning, integration.

Communication - Explain information orally in a meeting or presentation. Write a memo, email, or report. Examples: Active listening, reporting, surveying, teamwork, oral communication, written communication, presenting.

High-Demand Digital Building Block Skills

Analyzing Data - Examples include SQL, Microsoft excel, critical thinking, R or Python, Data Visualization, Presentation skills and Machine learning, data cleaning, data preparation.

Managing Data - Data mining, data assessments, data validation, data security, data transference, SQL, Workflow Optimization, Information systems, and market analysis, databases.

Software Development—Examples mathematical aptitude, problem solving, programming languages (Python, React, Angular, Docker, CompTIA, Amazon AWS), time management, writing and testing code, Machine learning, Source Control, Operating systems.

Computer Programming—examples include programming languages, write computer programs, update computer programs, troubleshoot programs, test software programs, collaborate with other programmers, mathematical skills, problem-solving, inquisitiveness, Java, C++.

Digital Security and Privacy—examples security engineering, encryption, intrusion detection, breach response, firewall development, vulnerability analysis, penetration testing, security information and event management, cybersecurity, HTTPs, SSL, and TLS, Endpoint threat detection and data loss prevention.

High-Demand Business Enabler Skills

Business Process—Operational procedures, ensure compliance, process improvements, business requirements, customer service, analysis techniques - Agile Business Analysis, Six Sigma, Business Process Modeling Notation (BLMN), and Rational Unified Process.

Project Management—Organization, negotiation, team management, time management, risk management, problem-solving, budget management, motivation, technical writing, adaptability, tech saavy, reporting skills, active listening, research skills, interpersonal skills, project management methodologies, policy knowledge, conflict management.

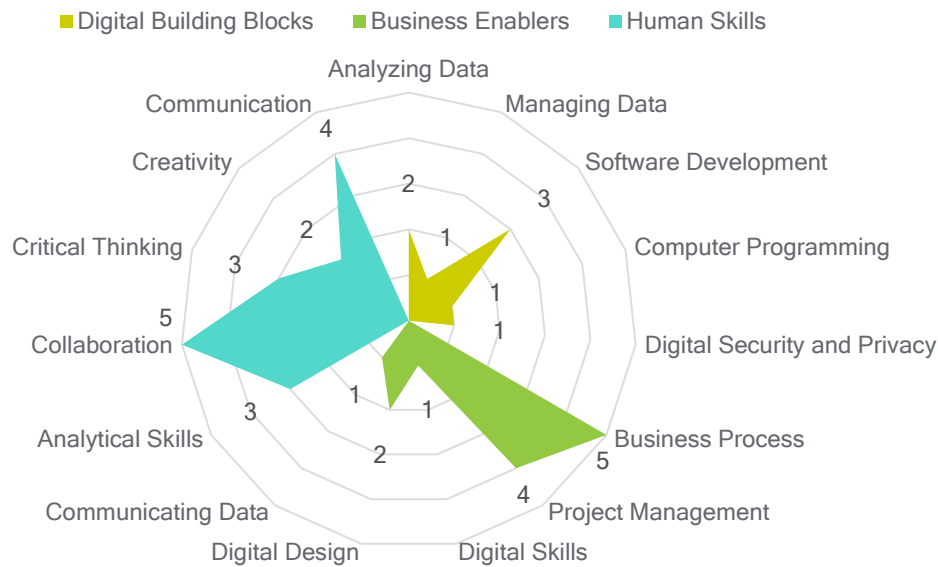
Digital Skills - social media, search engine marketing, analytics, content marketing, email, mobile campaigns, strategy and planning, social selling, pay per click marketing, Video production.

Digital Design - Typography, Adobe creative suite, interactive media, coding, branding, wireframing, layout and navigation principles, HTML/CSS, design thinking approaches, UX/UI.

Communicating Data—Data visualization, storytelling, writing and publishing skills, data visualization.

On St. Paul's East Side, Human Skills like Collaboration and Communication, and Business Enablers like Business Process and Project Management appear in highest volumes as required skills for local jobs. Digital Building Blocks around Analyzing Data, Computer Programming, and Digital Security and Privacy appear in lower volumes in this community.

St. Paul's East Side Foundational Skills for the Digital Economy



	Eastside	Rank
Business Process	25%	5
Project Management	16%	4
Digital Skills	2%	1
Digital Design	6%	2
Communicating Data	2%	1
Analyzing Data	8%	2
Managing Data	4%	1
Software Development	12%	3
Computer Programming	3%	1
Digital Security and Privacy	2%	1
Analytical Skills	15%	3
Collaboration	31%	5
Critical Thinking	11%	3
Creativity	6%	2
Communication	19%	4

Jobs posted by employers in St. Paul's Eastside between March 16 and July 31, 2020 showed demand comparable to in-demand skills across Ramsey County. However, 32% of the 106 top skills mentioned as "required" in new job ads posted during this four-and-a-half-month period were specific to employers located on St. Paul's East Side. 22 of the 33 skills unique to jobs posted by employers in St. Paul's East Side were related to caregiving positions, such as Home Health Aides. There was also a difference in the frequency of the skills within postings on the East Side compared to Ramsey County as a whole. The blue text below indicates skills required in positions advertised by employers located on St. Paul's East Side that are not in the top four required skills in each category across Ramsey County overall.

High-Demand Human Skills	High-Demand Digital Building Block Skills	High-Demand Business Enabler Skills
Analytical Skills 1) Medications 2) Administering Medications 3) Analysis 4) Monitoring Collaboration 1) Dedication 2) Collaboration 3) Leadership 4) Teaching Critical Thinking 1) Scheduling 2) Compliance 3) Evaluation 4) Problem solving Creativity 1) Passion 2) Innovation 3) Design 4) Creativity Communication 1) Communication 2) Customer Service 3) Relationships 4) Writing	Analyzing Data 1) Analysis 2) Monitoring 3) Detail-oriented 4) Evaluation Managing Data 1) Detail-oriented 2) Distribution 3) Research 4) Management Skills Software Development 1) Flexibility 2) Independent Work 3) Design 4) Creativity Computer Programming 1) Multitasking 2) Engineering 3) Mathematics 4) Infrastructure Digital Security and Privacy 1) Security 2) Infrastructure 3) Information Security	Business Process 1) Scheduling 2) Operations 3) Compliance 4) Customer Service Project Management 1) Collaboration 2) Leadership 3) Responding 4) Responsibility Digital Skills 1) Research 2) Influencing 3) Optimization Digital Design 1) Design 2) Creativity 3) Prioritization 4) Implementing Communicating Data 1) Writing 2) Written Communications

Skill Transferability

When advising individuals who have recently lost their jobs or are facing work instability, identifying jobs that the individual would be willing to take (meaning that it pays equally well or better than their prior role) and able to take (meaning they possess the skill set and educational background necessary for success). To simplify this search process, we can use a “willing and able” matrix, which utilizes skill competencies outlined in O*NET and estimated local future talent supply gaps to allow us to create meaningful career and education decisions.

The occupations below are all found in high volumes on St. Paul’s East Side, are anticipated to have a local surplus of talent over the next five years, and experienced high unemployment applications across Ramsey County since the beginning of the pandemic.

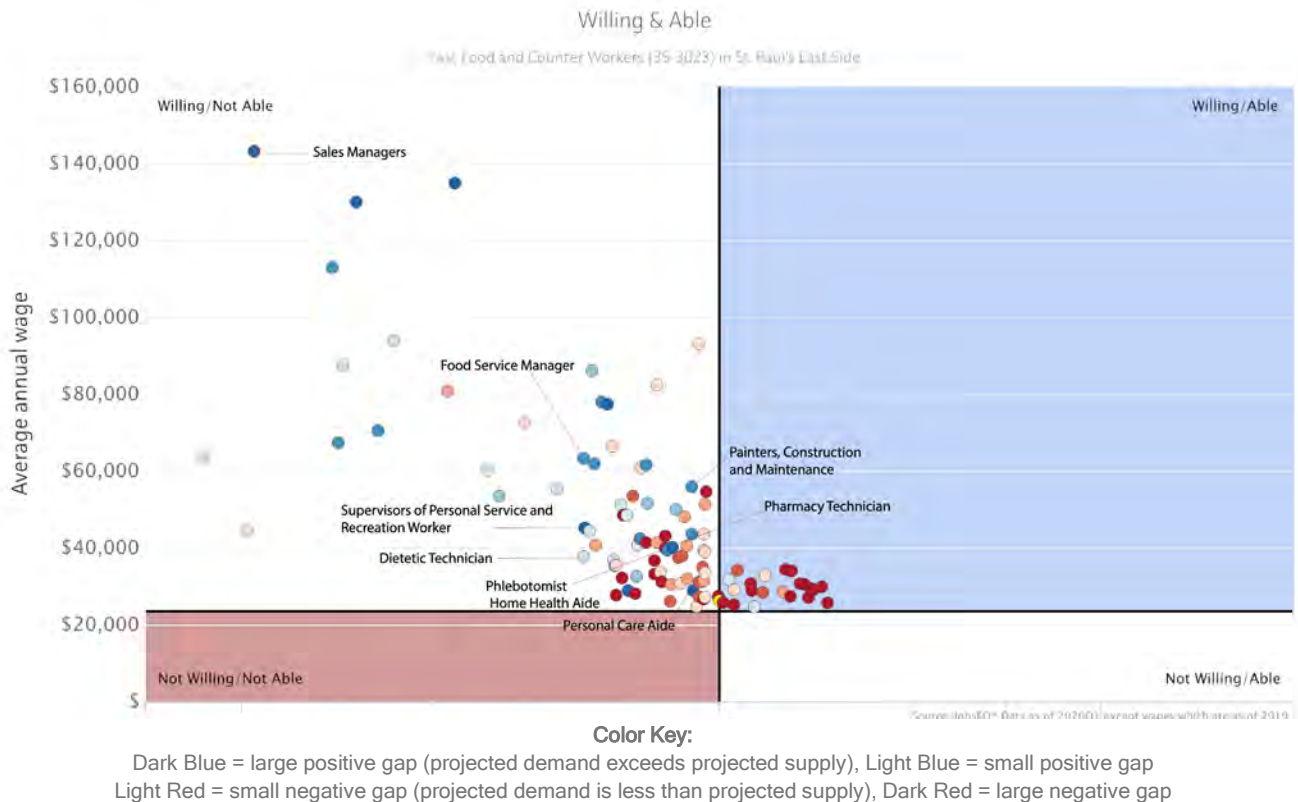
Fast Food and Counter Workers

There are a limited number of occupations available locally on St. Paul’s East Side that an individual who had previously worked as a Fast Food or Counter Worker, and those jobs that are available and related in skill sets (Dishwashers, Food Servers, Waiters and Waitresses) are anticipated to have excess talent in future years, be slow to recover from COVID-19 impacts, and pay similar low wages.

In contrast, by gaining a few industry skills or certifications, a Fast Food or Counter Worker could leverage customer service skills, attention to detail, money handling, and safe food handling to enter

into a career in a growing field such as a Pharmacy Technician, Phlebotomist, Personal Care Aide, Home Health Aide, Dietary Aide, or Dietetic Technician. There are also some similar entry-level skills related to Cargo and Freight Agents, Barbers, and Cleaning Staff Supervisor roles that would require a different set of retraining skillsets. Reskilling to become a Sales Manager may be appealing based on some overlapping skillsets and the high annual wage offered, but for many of these roles, a Bachelor's degree may be required. The willing and able matrix for Waiters, Waitresses and other Food Service Workers on St. Paul's East Side looks very similar to the chart shown below.

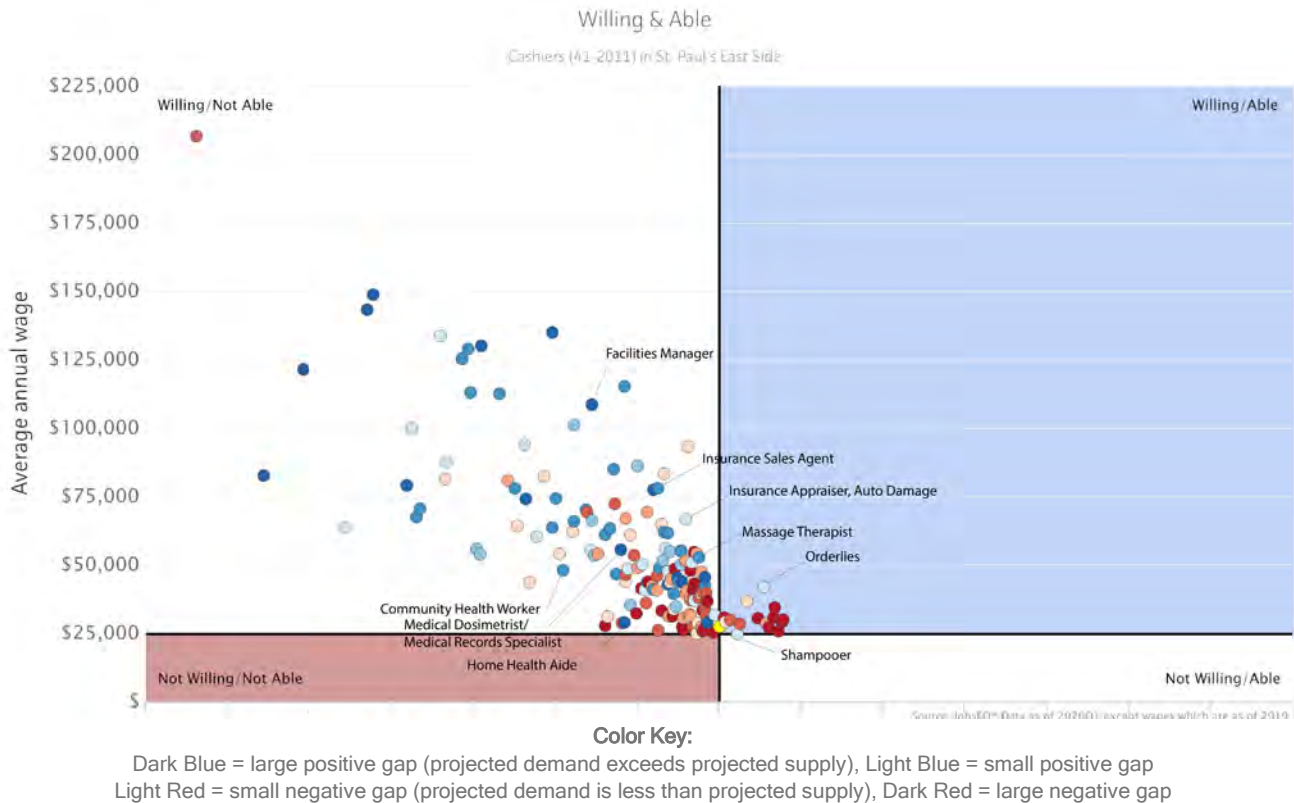
Fast Food and Counter Worker Skill Transferability on St. Paul's East Side



Cashiers

Cashiers receive and disburse money in establishments other than financial institutions. They may use electronic scanners, cash registers, or related equipment, and often process credit or debit card transactions and validate checks. Similar-paying, similar-skill, entry-level, high contact-intensity positions that may see shortages in talent on St. Paul's East Side over the next five years include Shampooers and Orderlies. Occupations that would have related skillsets but require a bit more training to be accessible to a former Cashier include Massage Therapist, Home Health Aide, Medical Dosimetrist, Medical Records Specialist, Community Health Worker, Insurance Appraiser, or Insurance Sales Agent.

Cashier Skill Transferability on St. Paul's East Side

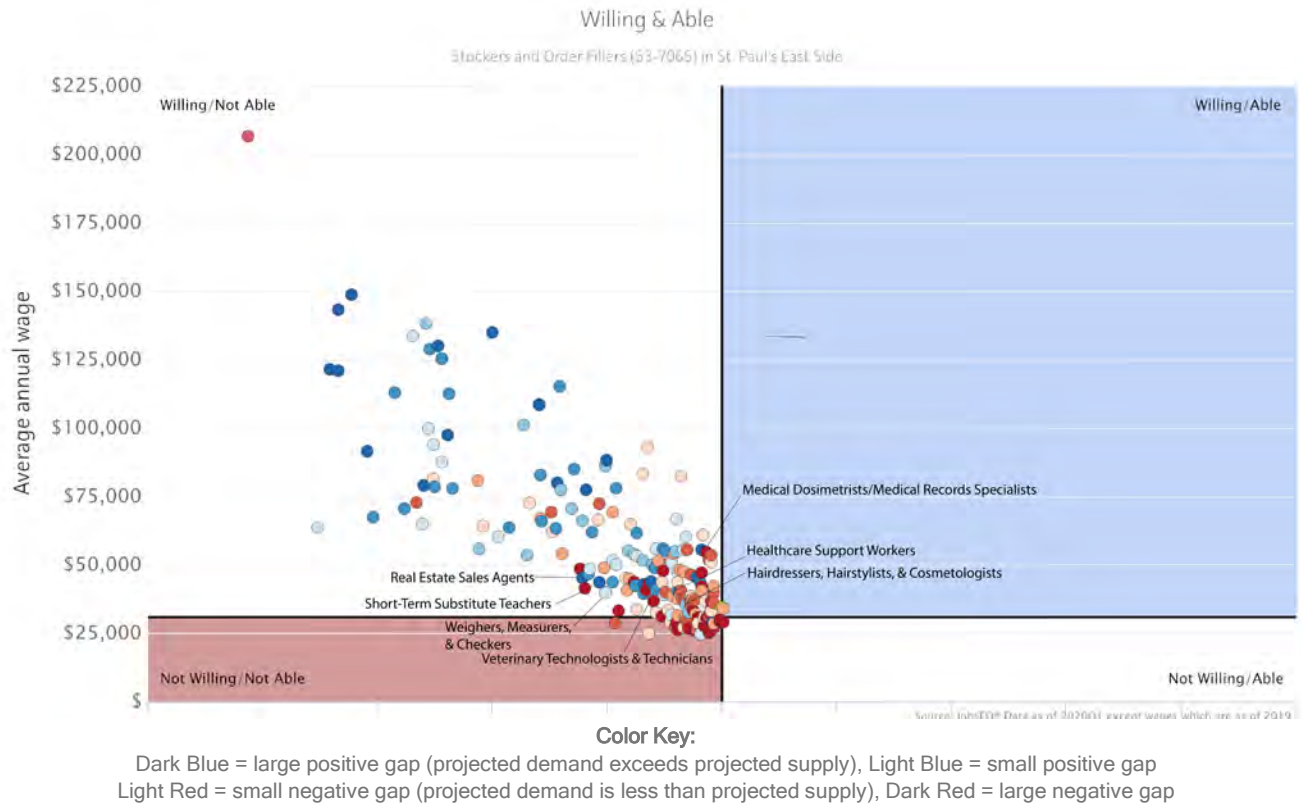


Stockers and Order Fillers

For the time being, Stock Pickers and Order Fillers are in high demand in the region. However, this occupation is anticipated to decline in overall demand over the next five years as automation simplifies the processes required for the position. In summary, Stockers and Order Fillers receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. They may also mark prices on merchandise and set up sales displays. In a longer-range planning process to support individuals taking these roles today, talent may consider training that would allow them to eventually move into a position as a Medical Records Specialist, Weigher/Measurer/Checker,

While positions like Postal Service Clerks, Library Assistants, Inspectors, and Interviewers are a bit closer in skillset and do anticipate adequate demand in this community, a talent oversupply is more likely than a shortage for these occupations. Instead, occupations requiring some retraining might be a better route. Occupations like Medical Records Specialist, Weighers/Measurers/Checkers, and Healthcare Support Workers will appreciate skills like stocking, managing orders, and maintaining clean records. Other occupations that are anticipating shortages on St. Paul's East Side and might fit interests or skill sets of Stockers and Order Fillers with some additional training and education include Real Estate Sales Agents, Substitute Teachers, and Veterinary Technologists.

Stock and Order Filler Skill Transferability on St. Paul's East Side



Conclusion

St. Paul's East Side has a variety of local career opportunities across multiple sectors, with business, finance, education, health, and human services in high demand now and into the future. Rising skills in operations, logistics, and a multitude of digital skills—including SQL, ETL Knowledge Transfer, and database architecture—signal a rising local demand for tech talent mirroring the broader workforce shifts happening in every industry. Education and workforce programming on St. Paul's East Side may choose to focus on business and finance careers with strong entry-level pathways for individuals with lower educational attainment to obtain certifications and education that will be necessary to advance a career in the field locally.

This report has highlighted the most critical human skills, digital skills, and business enablers sought in this community, as well as the related skills-based career shifts for individuals in service industries who may have experienced layoffs or are still employed in occupations that are likely to have an excess of talent locally over the next five years. However, it is important to remember that St. Paul's East Side is not an island; many individuals commute both in and out of this community daily for both work and educational opportunities; positioning these community needs in the broader context of Ramsey County as a whole will ensure that the county is filled with resilient neighborhood economies today and tomorrow.