



MASON TILLMAN
ASSOCIATES, LTD



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CHAPTER 1: CITY OF ST. LOUIS WORKFORCE STUDY

I. INTRODUCTION

In 2009, the Board of Aldermen enacted Ordinance 68412, which established project labor hour goals for apprentices, minorities, women, and local residents in an effort to ensure workforce diversity on the City of St. Louis (City) Public Works Contracts.¹ Ordinance 68412 was repealed by Ordinance 69427, which expanded the scope, but left the goal unchanged.² The City commissioned Mason Tillman Associates, Ltd. (Mason Tillman) to establish construction trades and apprentice employment goals to satisfy the objectives set forth in Ordinance 69427. This report examines the construction trades and apprentice availability and utilization, and provides an evidence-based framework to support updated goals and recommendations for ensuring workforce goal compliance. Construction worker availability is based on United States Census (Census) data, and the availability of apprentices is based on Department of Labor (DOL), Employment and Training Administration (ETA), and Office of Apprenticeship Data (OA) data. The level of minority, female, and apprentice utilization will be determined through an analysis of St. Louis Agency for Training and Employment (SLATE) 2010-2011 and 2013 annual reports. The goal-setting process is based on an assessment of the availability of construction workers and apprentices in the relevant trades who reside in the jurisdictional boundaries of the City of St. Louis.

The City of St. Louis is an independent Missouri city. The City of St. Louis' 2013 population is estimated as 47.9 percent African American, 46.4 percent Caucasian American, 0.3 percent Native American, 3.1 percent Asian American, and 3.7 percent Hispanic American.³ As a large city with substantial infrastructure development and improvements, the City of St. Louis awards numerous contracts for public works construction projects each year through the St. Louis Development Corporation (SLDC), the Board of Public Service (BPS), and the Lambert-St. Louis International Airport (Airport). These projects have a substantial economic impact on the City and the surrounding areas.

¹ ST. LOUIS, MO. ORDINANCE 69427 (May 21, 2009) (defining "Labor Hours" as "the total number of work hours workers receive as an hourly wage who are directly employed on the shit of the public works project...[which] shall include hours performed by workers employed by the contractor and all subcontractors working on the project...[but does not include] hours worked by non-working foremen, superintendents, owners and workers who are not subject to prevailing wage requirements)..

² ST. LOUIS, MO. ORDINANCE 69427 (Jan. 25, 2013).

³ St. Louis City Quick Facts from the US Census Bureau <http://quickfacts.census.gov/qfd/states/29/29510.html> Accessed December 23, 2014 (Note that Hispanic Americans may be of any race, and are also included in the applicable race category. Due to this fact, the percentages do not total to 100 percent).



II. LEGAL FRAMEWORK

The standards for setting the minority and female employment goals for the construction trades and apprentice programs are derived from the methodology set forth in Federal Executive Order (Order) 11246 and the Code of Federal Regulations (CFR). The Order is the required standard for setting employment goals when a project is federally funded. The National Apprenticeship Act (Act) and 29 CFR Parts 29 and 30 are the standards for apprentice goal-setting. Local goals are not subject to federal laws. Although the City is not subject to neither the Order nor the Act, these standards are the best practices in employment goal-setting and therefore will be used as legal guidance.

A. Local Ordinances

1. St. Louis City Ordinance 68412

St. Louis City Ordinance 68412, approved by the Board of Aldermen on May 21, 2009, set forth clear guidelines for establishing apprenticeship training, workforce diversity, and City resident programs for public works contracts. Project labor hour goals established for public works contracts with an estimated value equal to \$1 million or greater were set at 15 percent for apprentices, 25 percent for minorities, 5 percent for women, and 20 percent for residents. Labor hours performed by a worker who occupies two or more of these categories may be counted toward all applicable goals. Qualifying apprentices must be enrolled in a training program approved or recognized by the DOL, ETA, and OA.

The Ordinance established the SLATE and charged SLATE with responsibility for the implementation and administration of the Ordinance. A Community Jobs Board was also established to provide feedback to SLATE with regard to the proper implementation and administration of the Ordinance. The Community Jobs Board must include representation of women in construction, minorities in construction, community organizations, construction labor unions, and construction contractors. SLATE is responsible for providing an annual report to the Board of Aldermen detailing the administration and implementation of the Ordinance.

2. St. Louis City Ordinance 69427

St. Louis City Ordinance 69427, approved by the Board of Aldermen on January 25, 2013, repealed Ordinance 68412 but provided only slight revisions. Public works projects were expanded to include Tax Increment Financed Projects (TIF) and St. Louis City Bonded Projects. SLDC was also assigned the responsibility of implementation and administration of the ordinance with SLATE. In addition, the Ordinance required the use of expert services, if needed, in its implementation. Ordinance 69427 also modified the composition of the Community Jobs Board, by increasing the size of the Board and allowing for more representation from the community. Non-compliance is also addressed by Ordinance 69427, which provides for punitive action if there is a violation of the Ordinance. The goals



established in Ordinance 68412 remained unchanged for apprentices, minorities, women, and residents.

B. Federal Standards

1. Construction Trades Employment

Executive Order 11246 (Order), as amended in 1967, prohibits discrimination based on race, color, religion, sex, national origin, disability, or covered veteran status in the employment of construction workers on federal or federally-assisted construction contracts. The Order charged the Secretary of the United States Department of Labor (DOL) with the responsibility of adopting implementation rules and regulations. The equal opportunity and affirmative action clauses in 41 CFR Part 60-1.4(a) and (b), 41 CFR Part 60-250.4, and 41 CFR Part 60-741.4 established standards for setting goals for minority and female construction workers. The regulations also stipulate the affirmative action steps required to ensure compliance with the non-discrimination provision of the Order. Under the Order, the numerical goals are not intended to create set-asides for minorities or females, but rather, to measure the effectiveness of affirmative action efforts to prevent further discrimination in the industry.

The initial minority and female construction employment goals were tabulated from the 1970 Census. The goals were published by the DOL in the Federal Register on October 3, 1980, 45 FR 65979, 65984, as Appendix B-80 and December 30, 1980, 45 FR 85750, 85751. The minority construction employment goals were representative of the minority male and female percentages in the Civilian Labor Force⁴ within either the Standard Metropolitan Statistical Area (SMSA) or the Economic Area (EA)⁵. The 6.9 percent female employment goal was extended indefinitely in 1980.

Although the Office of Federal Contract Compliance Programs (OFCCP) has not updated the minority or female employment goals originally published in 1980, the regulations permit local governments to establish higher minority and female construction employment goals.⁶ In accordance with the OFCCP's Technical Assistance Guide for Federal Construction Contractors (OFCCP Guide), agency-specific goals for minority and female construction employment should be based on the availability of the appropriate workforce.⁷ The OFCCP Guide is the standard adhered to in setting employment goals for the City's construction contracts.

⁴ Consists of the employed and the experienced unemployed who are not in the military or institutionalized.

⁵ "United States Department of Labor, Employment Standards Administration," *Office of Federal Contract Compliance Programs*, 1980.

⁶ "United States Department of Labor, Employment Standards Administration," *Office of Federal Contract Compliance Programs, Technical Assistance Guide for Federal Construction Contractors*, E-1.

⁷ 41 CFR Part 60-4.6.



The State of Missouri also has affirmative action standards for minority and female construction employment. The Governor’s Executive Order No. 94-03 was enacted in 1994. Article XIII of the Executive Order requires that all construction contracts entered into with the State contain a clause prohibiting discriminatory practices. Article XIII also requires contractors who employ at least 50 persons to maintain an affirmative action program. While contractors are not required to attain minority utilization goals to receive state funds, they are required to establish non-discriminatory selection standards for hiring minority workers. All local governments within the State of Missouri are requested to cooperate with the standards set forth in the Executive Order.⁸

2. Apprenticeship Employment

The National Apprenticeship Act (Act), promulgated in 1937, was enacted to secure apprentice benefits and to safeguard the welfare of registered apprentices. Regulations to implement the Act (29 USC 50) were set forth in 29 CFR Part 29. Regulations regarding discrimination in apprentice programs were set forth in 29 CFR Part 30.

The Office of Apprenticeship Data (OA) is the federal agency responsible for the administration of the National Apprenticeship System. The OA regulates and standardizes training and provides technical assistance to potential and current sponsors of apprentice training programs. Joint employers, labor groups, individual employers, employee associations, and educational institutions may voluntarily request inclusion by the OA as an apprentice training program. Specific credentials and admission requirements are set by the program sponsor, but the requirements must align with industry standards and be approved by the OA under the Employment and Training Administration (ETA). Requirements vary based on the specific trade and the sponsor; however, most sponsors require applicants to be at least 18 years of age (16 years of age for some occupations) and have a high school diploma or equivalency. Once sponsors are approved by the OA, programs can offer a combination of on-the-job training and classroom instruction to prepare students to become tradespersons. Apprentices who graduate from OA-certified programs become qualified tradespersons.⁹

In addition, 29 CFR Part 30.4 requires the adoption of an Affirmative Action Plan (AAP).¹⁰ The plan is intended to go beyond passive nondiscrimination and must include procedures, methods, and programs for the active recruitment of minorities and females into apprentice training programs.¹¹ An AAP should also provide adequate outreach and recruitment with the expressed interest of increasing minority and female apprentice participation.

⁸ “Executive Order No. 94-03,” *Missouri Secretary of State*, December 14, 2014, http://www.sos.mo.gov/library/reference/orders/1994/eo94_003.asp.

⁹ “What is a registered apprentice?” *United States Department of Labor Employment and Training Administration*, September 17, 2014, <http://www.doleta.gov/OA/apprenticeship.cfm>.

¹⁰ 29 CFR Part 30.4 – Equal Opportunity in Apprenticeship and Training.

¹¹ *Id.*



Affirmative action steps listed in the regulations include a process to disseminate apprentice program admission requirements, available opportunities, application procedures, and participate in workshops on employment services. The process should also include cooperation with school boards, vocational systems, and internal structuring to support institutional buy-in. The range of services under the affirmative action program can be dependent on the size and available resources of the program sponsor.

C. Local Employment Goals

For local hiring programs, the legal principle is the rational basis standard. Local goals are not subject to federal laws,¹² nor is there a federal standard for formulating local hiring goals.¹³ Nevertheless, these goals may implicate federal constitutional issues and are increasingly promulgated by local governments to support efforts to increase the employment of residents on public works projects, reduce the level of local unemployment, and invest in the local economy. In some projects, community benefit programs are components of major development programs or public improvement projects, and others are enacted as state or local policy and applied to the jurisdictions' entire public works program.

In United Building Trades & Construction Trades Council of Camden Co. v. Mayor and Council of the City of Camden, 465 U.S. 208 (1984), the United States Supreme Court considered a challenge to an ordinance requiring 40% of employees and subcontractors working on city construction contracts be Camden residents. The Court, when considering the Camden ordinance, reasoned that the City of Camden may bias private sector businesses in their employment decisions to favor city residents on projects funded in whole or in part with public money without fear of violating the Commerce Clause. Considering the application of the ordinance to out of state residents, the Court indicated that the same ordinance may implicate the Privileges and Immunities Clause of the United States Constitution. The Supreme Court applied a two-step analysis. First, the Court must determine whether the ordinance burdens one of the privileges and immunities protected by the clause. Second, the Court must ascertain whether the out of state resident's interest in employment on public work projects in another State is fundamental to the promotion of interstate harmony and therefore, protected by the Privileges and Immunities Clause. The Supreme Court did not reach the merits of the challenge to the ordinance and remanded the case for further development of the factual record.

The Eastern District Court of Missouri recently ruled that the State cannot restrict employment to Missouri laborers or laborers from "nonrestrictive" states on its public works projects. "Nonrestrictive" states are those that have not enacted laws whose intent is to bar Missouri laborers from working on public works projects in those states. Recently businesses and their employees challenged the constitutionality of the Missouri Excessive Unemployment Law (Law).¹⁴ The plaintiff claimed that the Law violated the U.S.

¹² Such employment goals are not without precedent in Missouri. The Missouri Department of Transportation (MoDOT) used local hiring goals in 2006 for its \$535 million highway construction project.

¹³ "Going Regional: Community-Based Regionalism, Transportation and Local Hiring Agreements," *Berkeley Institute of Regional Development*, October 2007, 14-18.

¹⁴ *Lakeside Roofing Company v. State of Missouri, et al.*, 2012 WL 709276 (E.D.Mo.).



Constitution's Privileges and Immunities Clause, the Commerce Clause, and Equal Protection Clause. The Law provides that if the state's unemployment level exceeds five percent for more than two months, only Missouri laborers or laborers from "nonrestrictive" states can be employed on its public works projects, unless Missouri laborers are unavailable or incapable of performing the type of work required.

The Privileges and Immunities Clause (Clause) requires that citizens of each state are entitled to the same privileges as citizens of another state if it is "fundamental" to the promotion of interstate harmony. The court must determine whether the out-of-state resident's interest is sufficiently "fundamental" to the promotion of interstate harmony, as to fall within the purview of the Clause. The court agreed with the plaintiff and held that Missouri failed to articulate a substantial reason for treating residents of restrictive states differently than Missouri residents. The court believed that the disparate treatment by Missouri was for the purpose of influencing legislators in nonrestrictive states by restricting their citizens.

Next, the plaintiff argued that the state violated the Commerce Clause, which prohibits economic protectionism, i.e., regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors.¹⁵ To determine whether the state was in violation of the Commerce Clause, the court considered whether Missouri behaved as a market participant or a market regulator. After a review of the evidence presented by the state, the court ruled that the facts indicated that Missouri was not a market regulator, but acted in a proprietary manner by obtaining property via eminent domain and selling it to private parties.¹⁶ If a state or locality uses its funds or taxes as a "market participant" it is not subject to the requirements of the Commerce Clause.¹⁷

Lastly, the plaintiff claimed that the Law violated the 14th Amendment in that Missouri denied persons within its jurisdiction equal protection of the laws. The court applied the rational standard and concurred with the plaintiff, ruling that the Law was not rationally related to a legitimate government interest, but was retaliatory and punitive.

Assuming that the purpose of the Law is to bolster the prospects of Missouri residents, which some courts have considered a legitimate government purpose, the District Court ruled in this instance that Missouri's law had no rational relationship to this purpose.¹⁸

Establishing a local hiring program for residents of the City of St. Louis is not a violation of the Privileges and Immunities Clause or the Commerce Clause. These tenets are federal laws designed to ensure that citizens of one state are treated the same as those of another state, and a locality must be mindful of the implications of any local ordinance on out of state residents. However, the City must meet the rational basis standard in setting local hiring

¹⁵ *New Energy Co. v. Limbach*, 486 U.S. 269, 273 (1988).

¹⁶ Citing *Tax Increment Financing Comm'n of Kansas City v. J.E. Dunn Const. Col., Inc.* 781 S.W.2d 70, 73 (Mo. Banc 1989).

¹⁷ *Lakeside Roofing Company v. State of Missouri*, et al., 2012 WL 709276 (E.D.Mo.).

¹⁸ *Id.*



goals. A local government can satisfy this standard by simply demonstrating a legitimate government purpose for the proposed law.¹⁹ Additionally, the rational basis standard of review does not have to be the government’s actual interest. Rather, if the court can merely hypothesize a “legitimate” interest served by a challenged action, it will withstand the rational basis review.²⁰ The City’s desire to increase the employment of local residents on its public works projects as a tool to reduce the level of unemployment in the City of St. Louis would serve as a legitimate government interest.

III. METHODOLOGY

Under a fair and equitable system, the percentage of labor hours worked by apprentices, minorities, women, and residents should be relatively close to the percentage of available apprentices, minorities, women and residents in the workforce. In order to conduct the Workforce Study (Study) two steps were undertaken; one was an analysis of construction trades availability and the other an analysis of construction trades utilization on City projects. Underutilization of available workers in the construction trades was considered evidence to establish goals to ensure fair and equitable access to construction employment opportunities.

1. Availability Analysis

The availability analysis assesses the available and potential workforce for the City of St. Louis’ public works projects. Several steps were taken to assess the availability of construction workers. The first was identifying the trades (referred to as “occupations” in the Census) needed for the City’s current and anticipated public works projects. Mason Tillman worked closely with the City, SLDC, and the Airport to identify the anticipated items of work and trades needed. Table 1.01 lists the occupation descriptions, with corresponding Census Code and Standard Occupation Classification (SOC) Code.



¹⁹ *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).

²⁰ Sullivan, Kathleen M. & Gunther Gerald. *Constitutional Law*. Foundation Press, New York, NY. 16th Ed. Chapter 9 (2007).

Table 1.01: Relevant Occupations by Census and SOC Code

Relevant Occupation	Census Code	2000 SOC Equivalent
First-Line Supervisors/Managers of Construction	6200	47-2011
Brickmasons, Blockmasons, and Stonemasons	6220	47-2020
Carpenters	6230	47-2031
Carpet, Floor, and Tile Installers, and Finishers	6240	47-2040
Cement Masons, Concrete Finishers, and Terrazzo Workers	6250	47-2050
Paving, Surfacing, and Tamping Equipment Operators	6300	47-2071
Miscellaneous Construction Equipment Operators	6320	47-2072 47-2073
Drywall Installers, Ceiling Tile Installers, and Tapers	6330	47-2080
Electricians	6355	47-2111
Glaziers	6360	47-2121
Insulation Workers	6400	47-2130
Painters, Construction and Maintenance	6420	47-2141
Paperhangers	6430	47-2142
Pipelayers, Plumbers, Pipefitters, and Steamfitters	6440	47-2150
Plasterers and Stucco Masons	6460	47-2161
Roofers	6515	47-2181
Sheet Metal Workers	6520	47-2211
Iron and Steel Workers	6530	47-2171 47-2221
Fence Erectors	6710	47-4031
Hazardous Materials Removal Workers	6720	47-4041
Radio and Telecommunications Equipment Installers and Repairers	7020	49-2020
Security and Fire Alarm Systems Installers	7130	49-2098
Heating, Air Conditioning, Refrigeration Mechanics and Installers	7315	49-9021
Structural Metal Fabricators and Fitters	7740	51-2041

The occupation codes verified by the City, SLDC and the Airport were then used to query American FactFinder™ to define the baseline availability. The data in American FactFinder™ were obtained from the Equal Employment Opportunity (EEO) Tabulation. These data are collected annually by the Census Bureau from the American Community Survey (ACS), a mandatory nationally representative survey that ascertains demographic information, including current occupation. Data were downloaded from the table titled “EEO 2r. Detailed Census Occupation by Sex and Race/Ethnicity for Residence Geography, Citizen Universe: Civilian labor force 16 years and over who are a U.S. citizen EEO Tabulation 2006-2010 (5-year ACS data).”



American Community Survey statistics are estimations based upon a sample. The sample provides data upon which inferences can be made about the population of inquiry. A statistical sample attempts to come as close as possible to the corresponding quantity that would be obtained from the entire population, a complete census. The sampling and

estimation procedures used are derived from highly sophisticated techniques. Because the American Community Survey is a sample and can be conducted on a smaller scale than the decennial census, errors can presumably be controlled more effectively. As a result, survey responses can be more accurate than the decennial census results, which canvass the entire population.²¹

Occupation describes the kind of work a person does on the job. Occupation data were derived from answers to questions 45 and 46 in the 2012 American Community Survey. Question 45 asks: “What kind of work was this person doing?” Question 46 asks: “What were this person’s most important activities or duties?” These questions were asked of all people 15 years old and over who had worked in the past 5 years. For employed people, the data refer to the person’s job during the previous week. For those who worked two or more jobs, the data refer to the job where the person worked the greatest number of hours. For unemployed people and people who are not currently employed but report having a job within the last five years, the data refer to their last job. The Census Bureau uses these questions to describe the work activity and occupational experience of the American labor force. The data are used to formulate policy and programs for employment, career development and training. It also is the source of information on the occupational skills of the labor force in a given area to analyze career trends; and to measure compliance with antidiscrimination policies.²²

Registered apprentice program retention and attrition rates were also considered in addressing journeymen availability. Apprentice program retention data were requested for the period of 2009 to 2013 from the DOL Employment and Training Administration (ETA). The ETA provided data for 94 registered apprentice programs located in the St. Louis Metropolitan Statistical Area. Table 1.02 lists the programs and program locations by their official names as registered with the DOL.

Table 1.02: Relevant Apprentice Program Occupations and Location

Occupation	City	Occupation	City
Bricklayer - Construction	St. Louis	Plumber	Chesterfield
Carpenter	St. Louis		Columbia
Carpenter - Maintenance	St. Louis		Ellisville
Cement Mason	Jefferson		Eureka
	North Kansas		Fenton
	St. Louis		Joplin
Dry-Wall Applicator	Chesterfield		St. Joseph

²¹ “United States Census Bureau Limitations of the Data,” accessed December 23, 2014, <https://www.census.gov/prod/1/gen/95statab/app3.pdf>.

²² “American Community Survey 2012 Subject Definitions,” accessed December 22, 2014, http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2012_ACSSubjectDefinitions.pdf.



Occupation	City	Occupation	City
	St. Louis		St. Louis
Electrical Technician	Jefferson	Roofer	St. Louis
Electrician	Aftton	Sheet Metal Worker	Arnold
	Bridgeton		Bridgeton
	Jefferson		Crestwood
	St. Louis		Eureka
Electrician - Aircraft	Bridgeton		Fenton
Electrician - Maintenance	Bridgeton		Florissant
	North Kansas		Fulton
	St. Louis		Hazelwood
Elevator Constructor	St. Louis		Kirkwood
Fabricator Assembler Metal Production	Jefferson		Maryland Heights
Floor Layer	St. Louis		Raytown
Glazier	St. Louis		Springfield
Heating and Air Conditioning Installation and Service	Arnold		St. Joseph
	Bridgeton		St. Louis
	Crestwood	Wildwood	
	Eureka	Structural Steel/Ironwork	
	Fenton	St. Louis	
	Florissant	Telecommunications Technician	
	Hazelwood	Terrazzo Finisher/Worker	
	High Ridge	Tile Setter/Finisher	
	Kirkwood	St. Louis	
	Maryland Heights	Tool and Die Maker	
	St. Louis	St. Louis	
	Wildwood	Welder - Arc	
Winchester	Welder - Combination		
Insulation Worker	Bridgeton	Welder Fitter	
Machine Set-Up Operator	Bridgeton	Welding Technician	
		Jefferson	
Painter - Construction	Cape Girardeau	Pipe Fitter - Construction	Arnold
	Chesterfield		Ballwin
	Columbia		Bridgeton
	Jefferson		Chesterfield
	Joplin		Crestwood
	Sedalia		Ellisville
	Springfield		Eureka
	St. Louis		Fenton
	Waynesville		Hazelwood
	Plasterer		North Kansas
St. Louis			Kirkwood
			Maryland Heights
			St. Louis

2. Utilization Analysis

The utilization analysis was conducted by reviewing the annual reports compiled by SLATE in accordance with Ordinances 68412 and 69427. The two annual reports provided an



accounting of the number of labor hours performed by apprentices, minorities, women, and residents. Two SLATE reports were available for review:

- 2010 – 2011 Annual Report, St. Louis City Ordinance 68412
- 2013 Annual Report, St. Louis City Ordinance 69427

The 2010-2011 report provided proposed hours in addition to the hours that were actually worked. The reports also listed projects on which no work had begun at the time of the report. Therefore, only the hours worked were considered in the analysis as proposed hours were not included in the 2013 report. The analysis is presented disaggregated for apprentices, minorities, women, and residents. The ordinances specify that a worker who occupies two or more positions in any of these four categories may be counted in each category. Since the data presented in the annual reports do not specify the workers who occupied more than one category, the analysis could not consider the categories as exclusive. Thus, the analysis for each category was conducted separately.

Results of the utilization analysis are presented in *Findings*.

IV. WORKFORCE AVAILABILITY ANALYSIS

A. Census Count of Available Workforce

Table 1.03 below presents U.S. Census EEO data by occupation, ethnicity, and gender. There were a total of 4,792 City residents currently working in the construction industry. Of these workers, 36.29 percent were African American, 0.08 percent were Asian American, 1.36 percent were Hispanic American, 0.08 percent were Native American, 2.71 percent were Caucasian Female, and 59.47 percent were Caucasian Male.

Five occupations had the largest number of employees who were City residents. Those occupations include first-line supervisors, carpenters, electricians, painters and pipelayers.

Table 1.03: Availability by Occupation and Ethnic/Gender Group

Occupation	African American	Asian American	Hispanic American	Native American	Caucasian Female	Caucasian Male	Total
First-line supervisors of construction trades and extraction workers 6200 (SOC 47-1011)	155	0	0	0	10	355	520
Brickmasons, blockmasons, and stonemasons 6220 (SOC 47-2020)	80	0	0	0	0	50	130
Carpenters 6230 (SOC 47-2031)	640	0	15	0	0	680	1335
Carpet, floor, and tile installers and finishers 6240 (SOC 47-2040)	65	0	0	0	0	35	100



Occupation	African American	Asian American	Hispanic American	Native American	Caucasian Female	Caucasian Male	Total
Cement masons, concrete finishers, and terrazzo workers 6250 (SOC 47-2050)	25	4	0	4	0	55	88
Paving, surfacing, and tamping equipment operators 6300 (SOC 47-2071)	0	0	0	0	0	35	35
Construction equipment operators except paving, surfacing, and tamping equipment operators 6320 (SOC 47-207X)	25	0	0	0	0	65	90
Drywall installers, ceiling tile installers, and tapers 6330 (SOC 47-2080)	4	0	15	0	0	100	119
Electricians 6355 (SOC 47-2111)	130	0	0	0	30	200	360
Glaziers 6360 (SOC 47-2121)	0	0	0	0	0	35	35
Insulation workers 6400 (SOC 47-2130)	15	0	0	0	0	50	65
Painters, construction and maintenance 6420 (SOC 47-2141)	115	0	0	0	40	425	580
Paperhangers 6430 (SOC 47-2142)	15	0	0	0	0	0	15
Pipelayers, plumbers, pipefitters, and steamfitters 6440 (SOC 47-2150)	240	0	0	0	0	165	405
Plasterers and stucco masons 6460 (SOC 47-2161)	0	0	0	0	0	0	0
Roofers 6515 (SOC 47-2181)	25	0	35	0	0	85	145
Sheet metal workers 6520 (SOC 47-2211)	15	0	0	0	10	165	190
Structural iron and steel workers 6530 (SOC 47-2221)	50	0	0	0	0	35	85
Fence erectors 6710 (SOC 47-4031)	0	0	0	0	0	40	40
Hazardous materials removal workers 6720 (SOC 47-4041)	70	0	0	0	0	20	90
Radio and telecommunications equipment installers and repairers 7020 (SOC 49-2020)	25	0	0	0	20	85	130
Security and fire alarm systems installers 7130 (SOC 49-2098)	20	0	0	0	20	40	80
Heating, air conditioning, and refrigeration mechanics and installers 7315 (SOC 49-9021)	25	0	0	0	0	105	130
Structural metal fabricators and fitters 7740 (SOC 51-2041)	0	0	0	0	0	25	25
Total	1739	4	65	4	130	2850	4792
Percent	36.29%	0.08%	1.36%	0.08%	2.71%	59.47%	100.00%



Table 1.04 presents the availability of workers by occupation, and ethnic/gender group. There were a total of 4,792 City residents working in the construction industry. Of these, 37.81 percent were minorities, 2.71 percent were Caucasian Females, and 59.47 percent were Caucasian Males. These availability figures represent the workforce that the City may draw upon for public works contracts.

Table 1.04: Summary of Minority and Non-Minority Availability

Occupation	Number of Minorities	Percent of Minorities	Number of Caucasian Female	Percent of Caucasian Female	Number of Caucasian Male	Percent of Caucasian Male	Total
First-line supervisors of construction trades and extraction workers 6200 (SOC 47-1011)	155	3.23%	10	0.21%	355	7.41%	520
Brickmasons, blockmasons, and stonemasons 6220 (SOC 47-2020)	80	1.67%	0	0.00%	50	1.04%	130
Carpenters 6230 (SOC 47-2031)	655	13.67%	0	0.00%	680	14.19%	1335
Carpet, floor, and tile installers and finishers 6240 (SOC 47-2040)	65	1.36%	0	0.00%	35	0.73%	100
Cement masons, concrete finishers, and terrazzo workers 6250 (SOC 47-2050)	33	0.69%	0	0.00%	55	1.15%	88
Paving, surfacing, and tamping equipment operators 6300 (SOC 47-2071)	0	0.00%	0	0.00%	35	0.73%	35
Construction equipment operators except paving, surfacing, and tamping equipment operators 6320 (SOC 47-207X)	25	0.52%	0	0.00%	65	1.36%	90
Drywall installers, ceiling tile installers, and tapers 6330 (SOC 47-2080)	19	0.40%	0	0.00%	100	2.09%	119
Electricians 6355 (SOC 47-2111)	130	2.71%	30	0.63%	200	4.17%	360
Glaziers 6360 (SOC 47-2121)	0	0.00%	0	0.00%	35	0.73%	35
Insulation workers 6400 (SOC 47-2130)	15	0.31%	0	0.00%	50	1.04%	65
Painters, construction and maintenance 6420 (SOC 47-2141)	115	2.40%	40	0.83%	425	8.87%	580
Paperhangers 6430 (SOC 47-2142)	15	0.31%	0	0.00%	0	0.00%	15
Pipelayers, plumbers, pipefitters, and steamfitters 6440 (SOC 47-2150)	240	5.01%	0	0.00%	165	3.44%	405
Plasterers and stucco masons 6460 (SOC 47-2161)	0	0.00%	0	0.00%	0	0.00%	0
Roofers 6515 (SOC 47-2181)	60	1.25%	0	0.00%	85	1.77%	145
Sheet metal workers 6520 (SOC 47-2211)	15	0.31%	10	0.21%	165	3.44%	190
Structural iron and steel workers	50	1.04%	0	0.00%	35	0.73%	85

Occupation	Number of Minorities	Percent of Minorities	Number of Caucasian Female	Percent of Caucasian Female	Number of Caucasian Male	Percent of Caucasian Male	Total
6530 (SOC 47-2221)							
Fence erectors 6710 (SOC 47-4031)	0	0.00%	0	0.00%	40	0.83%	40
Hazardous materials removal workers 6720 (SOC 47-4041)	70	1.46%	0	0.00%	20	0.42%	90
Radio and telecommunications equipment installers and repairers 7020 (SOC 49-2020)	25	0.52%	20	0.42%	85	1.77%	130
Security and fire alarm systems installers 7130 (SOC 49-2098)	20	0.42%	20	0.42%	40	0.83%	80
Heating, air conditioning, and refrigeration mechanics and installers 7315 (SOC 49-9021)	25	0.52%	0	0.00%	105	2.19%	130
Structural metal fabricators and fitters 7740 (SOC 51-2041)	0	0.00%	0	0.00%	25	0.52%	25
Total	1812	37.81%	130	2.71%	2850	59.47%	4792

Table 1.05 presents the “residence to work place flow” of construction workers into the City.²³ Individuals who work in the City, but live in the surrounding counties account for 77.65 percent of construction workers in the City. Individuals who live in the City only comprise 22.35 percent of construction workers in the City. Non-city residents who work in the City primarily reside in Madison County, Illinois, St. Clair County, Illinois, Franklin County, Missouri, Jefferson County, Missouri, St. Charles County, Missouri, and St. Louis County, Missouri. Given the construction employment patterns within the City, and the fact that 77.65 percent of the construction employment opportunities in the City of St. Louis are filled by non-City residents, it is advised that the City maintain a resident employment goal.



²³ EEO 1w. Detailed Census Occupation by Sex and Race/Ethnicity for Worksite Geography Universe: Civilians employed at work 16 years and over EEO Tabulation 2006-2010 (5-year ACS data). Worksite geography refers to the place individuals worked at the time of the Census, and residence geography refers to the place individuals lived at the time of the Census.

Table 1.05: Worksite Location by Occupation

Occupation Code	Non-Residents Employed in the City	Percent of Non-Residents Employed in the City	City Residents Employed in the City	Percent of City Residents Employed in the City	Total Employed in the City	Percent Total Employed in the City
First-line supervisors of construction trades and extraction workers 6200 (SOC 47-1011)	1,010	9.79%	350	3.39%	1,360	13.19%
Brickmasons, blockmasons, and stonemasons 6220 (SOC 47-2020)	145	1.41%	55	0.53%	200	1.94%
Carpenters 6230 (SOC 47-2031)	1,890	18.33%	685	6.64%	2,575	24.97%
Carpet, floor, and tile installers and finishers 6240 (SOC 47-2040)	95	0.92%	85	0.82%	180	1.75%
Cement masons, concrete finishers, and terrazzo workers 6250 (SOC 47-2050)	65	0.63%	-	0.00%	65	0.63%
Paving, surfacing, and tamping equipment operators 6300 (SOC 47-2071)	10	0.10%	35	0.34%	45	0.44%
Construction equipment operators except paving, surfacing, and tamping equipment operators 6320 (SOC 47-207X)	174	1.69%	60	0.58%	234	2.27%
Drywall installers, ceiling tile installers, and tapers 6330 (SOC 47-2080)	209	2.03%	40	0.39%	249	2.41%
Electricians 6355 (SOC 47-2111)	1,010	9.79%	105	1.02%	1,115	10.81%
Glaziers 6360 (SOC 47-2121)	49	0.48%	35	0.34%	84	0.81%
Insulation workers 6400 (SOC 47-2130)	109	1.06%	15	0.15%	124	1.20%
Painters, construction and maintenance 6420 (SOC 47-2141)	589	5.71%	305	2.96%	894	8.67%
Pipelayers, plumbers, pipefitters, and steamfitters 6440 (SOC 47-2150)	884	8.57%	120	1.16%	1,004	9.74%
Plasterers and stucco masons 6460 (SOC 47-2161)	34	0.33%	35	0.34%	69	0.67%
Roofers 6515 (SOC 47-2181)	255	2.47%	145	1.41%	400	3.88%
Sheet metal workers 6520 (SOC 47-2211)	340	3.30%	50	0.48%	390	3.78%
Structural iron and steel workers 6530 (SOC 47-2221)	260	2.52%	45	0.44%	305	2.96%
Hazardous materials removal workers 6720 (SOC 47-4041)	35	0.34%	-	0.00%	35	0.34%
Radio and telecommunications equipment installers and repairers 7020 (SOC 49-2020)	395	3.83%	50	0.48%	445	4.31%

Occupation Code	Non-Residents Employed in the City	Percent of Non-Residents Employed in the City	City Residents Employed in the City	Percent of City Residents Employed in the City	Total Employed in the City	Percent Total Employed in the City
Security and fire alarm systems installers 7130 (SOC 49-2098)	20	0.19%	10	0.10%	30	0.29%
Heating, air conditioning, and refrigeration mechanics and installers 7315 (SOC 49-9021)	400	3.88%	55	0.53%	455	4.41%
Structural metal fabricators and fitters 7740 (SOC 51-2041)	30	0.29%	25	0.24%	55	0.53%
Total	8,008	77.65%	2,305	22.35%	10,313	100.00%

B. Registered Apprentices Program Retention and Attrition

The compiled number of apprentices who complete a registered apprenticeship program is one source to determine the number of new entrants into the construction trades workforce. To calculate the retention and attrition of the registered apprenticeship programs, the number of apprentices entering each program had to be determined. The data provided by the ETA included the number of active apprentices, the number of cancellations, and the number of completions. Active apprentices are those who are registered in a program whose expected completion date has not occurred. Canceled apprentices are those whose apprenticeship agreement has been terminated without completion. Completed apprentices are those who have finished the training program. By using these data and the formula below, the number of annual new enrollees was determined.

$$Active^{Current} = (Active^{Prior} + New^{Current}) - (Canceled^{Current} + Completed^{Current})$$

This formula considers the number of active participants at the end of the previous year, new enrollees, and those who leave either by canceling or completing. An additional formula is presented below which utilizes the same data points to calculate new entries into the apprenticeship programs.

$$New^{Current} = (Active^{Prior} + Active^{Current}) - (Canceled^{Current} + Completed^{Current})$$

Table 1.06 presents the results of these calculations. There were more than 200 new apprentices annually from 2010 to 2013, with the exception of 2012. In 2012, 92 people enrolled. Because the calculation of new enrollees considers the numbers of the previous year, the ETA data did not enable a calculation of the number enrolled in 2009.

The ETA data show a relatively high number of cancellations from the program each year; the peak was 131 cancellations in 2010. Analyzing the cancellations in concert with the number of individuals enrolled and the number of individuals who complete the programs reveals a very low overall completion rate.



However, the number of active apprentices has steadily increased from 18 in 2009 to 293 in 2013, possibly in response to initiatives to encourage individual participants' interest in the programs. But the data show that the completion rate has stayed low and constant, with the exception of 2010, which peaked at 56, and 2012, which decreased to 10. The decrease in 2012 may be a result of the programs that were temporarily suspended because of lack of openings in the construction industry.

Table 1.06: Apprentice Program Entry and Exit

Year	Number Enrolled	Number Active	Program Exit	
			Canceled	Completed
2009	--	18	94	45
2010	220	51	131	56
2011	216	140	86	33
2012	92	119	84	10
2013	232	293	43	42

(--) data not available

1. Apprentice Program Enrollment by Year

In 2009, as shown in Table 1.07, 11.11 percent of active apprentices were African American, and 89.89 percent were Caucasian Male; 1.06 percent of apprentices who Canceled were Asian American, 12.77 percent were African American, 1.06 percent were Caucasian Female, and 85.11 percent were Caucasian Male; 2.22 percent of apprentices who successfully completed the program were African American, 2.22 percent were Caucasian Female, and 95.56 percent were Caucasian Male.

Table 1.07: Active Apprentices by Ethnicity, 2009

	Number Active	Percent Active	Number Canceled	Percent Canceled	Number Completed	Percent Completed
African Americans	2	11.11%	12	12.77%	1	2.22%
Asian Americans	0	0.00%	1	1.06%	0	0.00%
Hispanic Americans	0	0.00%	0	0.00%	0	0.00%
Native Americans	0	0.00%	0	0.00%	0	0.00%
Caucasian Females	0	0.00%	1	1.06%	1	2.22%
Caucasian Males	16	88.89%	80	85.11%	43	95.56%
Total	18	100.00%	94	100.00%	45	100.00%

In 2010, as shown in Table 1.08, 3.92 percent of active apprentices were African American, 1.96 percent were Caucasian Female, and 99.89 percent were Caucasian Male; 19.08 percent of apprentices who Canceled were African American, and 80.92 percent were Caucasian Male; 10.71 percent of apprentices who successfully completed the program were African American, 1.79 percent were Caucasian Female, and 87.5 percent were Caucasian Male.



Table 1.08: Active Apprentices by Ethnicity, 2010

	Number Active	Percent Active	Number Canceled	Percent Canceled	Number Completed	Percent Completed
African Americans	2	3.92%	25	19.08%	6	10.71%
Asian Americans	0	0.00%	0	0.00%	0	0.00%
Hispanic Americans	0	0.00%	0	0.00%	0	0.00%
Native Americans	0	0.00%	0	0.00%	0	0.00%
Caucasian Females	1	1.96%	0	0.00%	1	1.79%
Caucasian Males	48	94.12%	106	80.92%	49	87.50%
Total	51	100.00%	131	100.00%	56	100.00%

In 2011, as shown in Table 1.09, 4.05 percent of active apprentices were African American, 1.35 percent were Caucasian Female, and 94.59 percent were Caucasian Male; 10.47 percent of apprentices who Canceled were African American, 1.16 percent were Native American, and 88.37 percent were Caucasian Male; 3.03 percent of apprentices who successfully completed the program were Asian American, 9.09 percent were African American, 6.06 percent were Caucasian Female, and 81.82 percent were Caucasian Male.

Table 1.09: Active Apprentices by Ethnicity, 2011

	Number Active	Percent Active	Number Canceled	Percent Canceled	Number Completed	Percent Completed
African Americans	6	4.05%	9	10.47%	3	9.09%
Asian Americans	0	0.00%	0	0.00%	1	3.03%
Hispanic Americans	0	0.00%	0	0.00%	0	0.00%
Native Americans	0	0.00%	1	1.16%	0	0.00%
Caucasian Females	2	1.35%	0	0.00%	2	6.06%
Caucasian Males	140	94.59%	76	88.37%	27	81.82%
Total	148	100.00%	86	100.00%	33	100.00%



In 2012, as shown in Table 1.10, 15.75 percent of active apprentices were African American, 2.74 percent were Caucasian Female, and 81.51 percent were Caucasian Male; 10.71 percent of apprentices who canceled were African American, and 89.29 percent were Caucasian Male; 20 percent of apprentices who successfully completed the program were African American, and 80 percent were Caucasian Male.

Table 1.10: Active Apprentices by Ethnicity, 2012

	Number Active	Percent Active	Number Canceled	Percent Canceled	Number Completed	Percent Completed
African Americans	23	15.75%	9	10.71%	2	20.00%
Asian Americans	0	0.00%	0	0.00%	0	0.00%
Hispanic Americans	0	0.00%	0	0.00%	0	0.00%
Native Americans	0	0.00%	0	0.00%	0	0.00%
Caucasian Females	4	2.74%	0	0.00%	0	0.00%
Caucasian Males	119	81.51%	75	89.29%	8	80.00%
Total	146	100.00%	84	100.00%	10	100.00%

In 2013, as shown in Table 1.11, 17.41 percent of active apprentices were African American, 0.34 percent were Hispanic American, 0.34 percent were Native American, 2.05 percent were Caucasian Female, and 79.86 percent were Caucasian Male; 2.33 percent of apprentices who Canceled were Asian American, 23.26 percent were African American, 4.65 percent were Caucasian Female, and 69.77 percent were Caucasian Male; 26.19 percent of apprentices who successfully completed the program were African American, 9.52 percent were Caucasian Female, and 64.29 percent were Caucasian Male.

Table 1.11: Active Apprentices by Ethnicity, 2013

	Number Active	Percent Active	Number Canceled	Percent Canceled	Number Completed	Percent Completed
African Americans	51	17.41%	10	23.26%	11	26.19%
Asian Americans	0	0.00%	1	2.33%	0	0.00%
Hispanic Americans	1	0.34%	0	0.00%	0	0.00%
Native Americans	1	0.34%	0	0.00%	0	0.00%
Caucasian Females	6	2.05%	2	4.65%	4	9.52%
Caucasian Males	234	79.86%	30	69.77%	27	64.29%
Total	293	100.00%	43	100.00%	42	100.00%

These results illustrate substantial variation in the percentage of active, canceled, and completed status by ethnic and gender group across all five years of the study period. Within the study period, both the number and percent of active African American apprentices increased. There were too few Asian American, Hispanic American, and Native American apprentices for any similar inferences to be made about these groups.



Despite increases in the number of active African American, Caucasian Female, and Caucasian Male apprentices, dropout rates differ among these ethnic and gender groups. In each year (except 2012), African Americans experienced a higher percentage of cancellations than the other ethnic groups. In contrast, Caucasian Males experienced a lower percentage of cancellations. These cancellations ultimately affect the ethnic and gender composition of new entrants into the construction field.

V. WORKFORCE UTILIZATION ANALYSIS

A. Introduction

Ordinance 69427 stipulates that projects with a base value equal to \$1,000,000 or greater must meet project labor hour goals for minority, women, resident, and apprentice workers. The labor hour goals are 15 percent for apprentices, 25 percent for minorities, 5 percent for women, and 20 percent for residents. The utilization analysis assesses the City’s progress in meeting these goals through an analysis of the number of work hours performed on public works projects during the study period.

B. Utilization Data Sources

As detailed in the *Methodology* section herein, data were derived from two annual reports published by the SLATE. The total of these reports enumerated hours worked by apprentices, minorities, women, and residents along with the total number of hours worked per project.

C. Findings

After compiling all of the reported utilization data subject to analysis, goal attainment was calculated for minorities, apprentices, women, and residents. For the reported contracts minorities accounted for 24.34 percent of the total hours, apprentices accounted for 19.06 percent of the total hours, women accounted for 4.13 percent of the total hours, and residents accounted for 13.61 percent of the total hours as illustrated in Table 1.12.

Table 1.12: Project Work Hour Utilization by Group

Years		Minority Hours	Apprentice Hours	Women Hours	Residents Hours	Total Hours
2010-2011	Total	51,845.25	29,829	6,493.25	27,196.5	174,988
	Percent	29.63%	17.05%	3.71%	15.54%	100.00%
2012-2013	Total	82,781.1	75,595.41	16,369.03	48,108.16	378,166.6
	Percent	21.89%	19.99%	4.33%	12.72%	100.00%
Combined	Total	134,626.4	105,424.4	22,862.28	75,304.66	553,154.6
	Percent	24.34%	19.06%	4.13%	13.61%	100.00%

To determine goal attainment, the actual project work-hour utilization was compared to the goals mandated by Ordinance 69427. Comparing these datasets allows for the identification



of any utilization deficiencies on public works projects. Of the four groups, only the utilization of apprentices satisfied the goal. As shown in Table 1.13, utilization of minorities and women was slightly under current goals. The utilization of residents was substantially lower than the 20 percent goal. Only 13.61 percent of total worked hours were performed by residents.

Table 1.13: Goal Attainment by Group

	Minority	Apprentice	Women	Residents
Utilization	24.34%	19.06%	4.13%	13.61%
Hiring Goal	25.00%	15.00%	5.00%	20.00%
Difference	-0.66%	4.06%	-0.87%	-6.39%

VI. GOAL FORMULATION

A. Formulation of the Construction Trades Employment Goal

The proposed goal is based on an assessment of the attainment of the City’s current goal, and an analysis of the availability of construction workers and apprentices in the relevant trades who reside in the jurisdictional boundaries of the City of St. Louis.

Pursuant to St. Louis City Ordinance 68412, the City’s current contract labor hour goals for public works contracts with an estimated value equal to \$1 million or greater is 25 percent of all contract labor hours should be performed by minorities and 5 percent of all contract labor hours should be performed by women. A review of the City’s race and gender neutral initiatives was assessed to determine the effort undertaken to attain the current goals. The City implemented extensive race-neutral measures including but not limited to targeted outreach, technical assistance, and modification to its monitoring measures. The measures employed by the City were used to increase opportunities for all local residents interested in working in the construction trades including minorities and Caucasian females. The race and gender-neutral measures implemented by the City from 2009 through 2013 are described below:

- Outreach Activities
 - Partner with the St. Louis Development Corporation, Lambert International Airport, and the City’s Board of Public Services to engage in strategic and tactical planning to develop appropriate action plans regarding workforce development.
 - Meet with elected officials, City Aldermanic Board Members and others to provide information on available construction and training opportunities for their constituents.



- Serve as liaison to community organizations including the Urban League, Better Family Life, Clergy Coalition, International Institute, and Hispanic Arts Council to disseminate information on activities to recruit construction trade workers.
 - Partner with the Chicago Women in Trade to increase the participation of women in the construction trades.
 - Work with high schools, community colleges, and local trade schools, including Ranken Technical College to encourage students to pursue apprenticeships and increase the pipeline of those interested in the trades.
 - Meet with available developers prior to construction projects to identify opportunities to engage local workforce.
 - Participate in outreach activities sponsored by local agencies and community forums and panels.
- Technical Assistance
 - Actively recruit minorities and women to provide learning opportunities with local trade and union organizations including Building Union Diversity (BUD).
 - Partner with the Metropolitan Sewer District (MSD) to train and employ minorities and women.
 - Sponsor Monthly ‘Info Sessions’ with approximately 20 trade and union representatives to provide local residents workshops on understanding job functions, apprenticeship entrance requirements and skills needed for success working in the trades.
 - Host meetings with contractors and developers to access current crew and gain knowledge of their efforts to develop an entry way for minorities and women.
 - Tracking and Monitoring Measures
 - Monitor workforce reports on projects authorized under Ordinance 69427.
 - Correspond with certified MSD contractors to monitor outreach activities.
 - Track and minority the efforts of general contractors’ outreach activities.
 - Solicit feedback from previous workers on major highway projects to confirm their current working status and interest in returning to work in the construction field.

Despite these race efforts, the City was unable to exceed its current 25 percent minority goal. Although the goal setting process revealed that 37.81 percent of City residents who work in the construction industry within the identified occupation codes are minority males and females, the City should retain its current 25 percent minority goal. And 2.71 percent of City’s residents who work in the construction industry within the identified occupation codes are Caucasian females. The employment goal for females has been defaulted to the national standard of 6.9 percent, pursuant to 41 CFR Part 60-4.6. The proposed employment goal for females reflects the minimum percentage of contract labor hours to be performed by females (minority and Caucasian).

It is further recommended that the City enhance its race and gender measures to include:



- Targeted demographic research to obtain data on the workforce and economic development issues negatively impacting the participation of local residents in the construction trades. This research could be used to ensure the City’s outreach and technical assistance strategies are effective for the relevant population. The research should minimally include:
 - Input from advisory committees servicing apprenticeship programs
 - Input from organizations servicing youth, i.e. Juvenile Probation Department and the State of Missouri Division of Youth Services, St. Louis Regional Office
 - Interviews with general contractors, hiring managers, and industry associations
 - Interviews with current apprentices and potential apprentices
 - Individual interviews with education and training providers

- Identified strategies to close skill gaps based on the hiring needs of developers and general contractors. The City should strengthen and expand its partnerships with contractors, contractor associations, labor unions, apprenticeship programs, and education and training providers to foster a trained workforce to meet the hiring needs of employers. The City should conduct routine assessments of the needs of local contractors and developers to determine any skill gaps in the available labor force as well as training and educational barriers that can impact the hiring needs of employers.

B. Formulation of the Apprentice Employment Goal

Apprentice programs provide formal entry opportunities into the construction industry. The programs use an on-the-job training model with classroom instruction to prepare apprentices to become journeymen. This model of instruction requires apprentices to train on-the-job under experienced journeymen. However, the cancellation rate of persons enrolled in the registered apprentice programs in the Metropolitan Statistical Area significantly increased between 2009 and 2013. Given the low overall completion rate, the apprentice employment goal should maximize the number of trained apprentices. Numeric ratios for on-the-job apprentice to journeyman training are required by 29 CFR 29.5(7) and vary by state and program from 1:1 to 1:5.²⁴ The 1:4 ratio has been proposed for the City’s apprentice employment goal, therefore, it is recommended that 20 percent of all contract labor hours should be performed by apprentices.

C. Formulation of the Resident Employment Goal



²⁴ “The 1998 Apprenticeship Ratio Report and National Ratio Survey”, Montana Apprenticeship and Training Program in conjunction with the Council of State Governments

The Federal Reserve Bank of St. Louis’ economic and research data reports the City’s unemployment rate to be 7.3 percent²⁵, which is significantly higher than the national rate of 5.8 percent²⁶, and the St. Louis County rate of 5.2 percent.²⁷ A local resident employment goal directs City-funded employment opportunities to those who reside in the City. The local economy is strengthened by reduced unemployment, and the recycling of dollars within the City.

The formulation of the local resident employment goal is based on the availability of workers employed within the construction geographic market area as documented in the Disparity Study. The Disparity Study revealed that 85.57 percent of the City’s construction contracting dollars were awarded to businesses domiciled within the City of St. Louis and St. Louis County. Table 1.14 below presents the availability of construction workers by City of St. Louis or St. Louis County residency. Of the 20,586 construction workers employed in the geographic market area, 23.28 percent were City residents, and 76.72 percent were residents of St. Louis County.

The goal should minimally reflect the availability of workers who reside in the City, and should be no less than 23 percent of all contact labor hours.

Table 1.14: Market Area Construction Worker Availability

Number of City Residents	Percent of City Residents	Number of County Residents	Percent of County Residents	Total Number	Total Percent
4,792	23.28%	15,794	76.72%	20586	100.00%



²⁵ “Unemployment Rate in St. Louis [Independent City], MO.” Accessed December 24, 2014, <http://research.stlouisfed.org/fred2/series/MOSSURN>. A level which is significantly higher than the national rate.

²⁶ “Labor Force Statistics from the Current Population Survey,” *Bureau of Labor Statistics*, data extracted on December 24, 2014, <http://data.bls.gov/timeseries/LNS14000000>.

²⁷ “Unemployment Rate in St. Louis County, MO,” accessed December 24, 2014, <http://research.stlouisfed.org/fred2/series/MOSLURN>.



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