

Governing AI Where It Is Built: Municipal Capacity, Labor Intensity, and the Civic–Industry Split in San José, California

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Abstract

San José is described as the capital of Silicon Valley. That phrase mixes a labor market with a city government. May 2025 Occupational Employment and Wage Statistics put 149,970 computer and mathematical jobs in the San Jose–Sunnyvale–Santa Clara metropolitan area, 13.2 percent of local employment against 3.4 percent nationally (location quotient 3.91). Software developers number 87,350 (LQ 7.09). The City of San José is a different unit. Policy Manual 1.7.12 (28 June 2024) assigns the CIO, CISO, and privacy officer, requires an AI Review and vendor FactSheet, and prohibits real-time biometrics, emotion analysis, social scoring, and fully automated high-stakes decisions. With San José State University the city has trained more than 1,000 employees, about 15 percent of staff, and has exported templates through the GovAI Coalition (public 13 March 2024; 300-plus local governments by November 2024). I code six published civic instruments ($C = 0.80$) and state a descriptive split $S = LQ/T = 26.07$. The number is a ratio of two published rates, not a treatment effect. The portable lesson is the municipal package, not the valley’s occupational mix.

Index Terms

Artificial intelligence, San José, municipal government, occupational employment, public-sector procurement, GovAI Coalition.

I. INTRODUCTION

San José is usually described as the capital of Silicon Valley. That label mixes two objects that should be kept apart. One is a labor market. In May 2025 the San Jose–Sunnyvale–Santa Clara metropolitan statistical area (MSA) employed 149,970 workers in computer and mathematical occupations, 13.2 percent of local payroll employment against 3.4 percent in the United States as a whole [1]. Software developers alone numbered 87,350 and were employed at 7.09 times the national rate [1]. The other object is a municipal corporation. The 2020 Census counted 1,013,240 residents in the city [2]. The city government is not the industry cluster. Its distinctive public record on artificial intelligence is a stack of staff rules, an inventory and review process, a training program run with San José State University, and a coalition that other local governments copy [3–6].

This paper treats that split as the fact to be documented, not as a slogan. A city can sit next to firms that train and ship models and still have to write its own rules for a permitting clerk, a fleet shop, or a contract file. Private location quotients do not automatically become public capability. Conversely, a city that writes a careful policy is not, by that act, an AI producer. Figure 2 states the two units and the arrows that actually cross them: vendors and talent one way, procurement rules and prohibited uses the other.

The contribution is documentary and descriptive. I place the Bureau of Labor Statistics Occupational Employment and Wage Statistics (OEWS) release for May 2025 [1] next to City Policy Manual 1.7.12 (enacted 28 June 2024) [3, 7], the city’s generative-AI guidelines [8], the GovAI Coalition launch of 13 March 2024 [4, 9], a November 2024 SPUR interview with the city privacy officer [6], and

the city’s own count that more than 1,000 employees—about 15 percent of the municipal workforce—have completed the upskilling program [5, 10]. From those published rates I compute a stated ratio $S = LQ/T = 3.91/0.15 = 26.07$. S is not a treatment effect. It is the computer-occupation location quotient divided by the stated training coverage. The algebra and the cell anchors live in the project codebook.

Two claims follow, and they are modest. First, the industry side of San José is extreme on any national occupational yardstick. Second, the city’s AI work is a governance export: a policy, a review, a training cohort, and a template library used by hundreds of other agencies [6]. That is a different object from “AI in San José” as a product-market story. The rest of the paper keeps the two objects labeled.

II. RELATED WORK AND SETTING

Regional-advantage and job-geography accounts already explain why software and research occupations concentrate in Santa Clara County [11, 12]. Task-based labor economics explains why those occupations are the ones that write, test, and supervise models, and why wage gaps between computer work and service work can widen when automation cheapens a subset of tasks [13, 14]. Digital-economics and machine-learning-at-work papers treat prediction as a drop in the cost of a specific input, not as a municipal service [15, 16]. None of that literature is a city policy manual.

A second literature treats the city as a data platform: sensors, dashboards, and “smart urbanism” [17]. Digital-era governance work asks how public organizations absorb information-technology waves [18]. Capability diagnoses in development and public administration warn that written policy can run ahead of implementation [19]. San José’s record sits across those lines. The city is a neighbor of the firms that sell the tools. It is also a mid-sized American general-purpose government that has to answer California public-records law, a digital-privacy ordinance, and a unionized workforce [3].

The empirical unit must stay honest. OEWS estimates in this paper are for the San Jose–Sunnyvale–Santa Clara MSA, which OMB defines as Santa Clara County plus San Benito County [1]. Adobe and Zoom headquarters are visible from City Hall [6]; many of the 149,970 computer-and-mathematical jobs are not inside the city limit. Civic counts (policy, training, coalition) are city-government counts. Mixing the two without a label is the usual error in “AI in Silicon Valley” briefs. This paper does not estimate a city-limit occupational census; the ACS microdata exercise is left for a revision.

The robotaxi and rideshare papers already in this series treat a different margin—vehicle automation and driver displacement. This manuscript is not a remake of that work. It is about staff AI inside City Hall and about the occupational base of the surrounding MSA.

III. METHODS

The design is a two-object documentary synthesis plus two stated arithmetic objects. There is no survey, no administrative microdata extract, and no estimated regression.

A. Sources

Industry facts are taken from the BLS Western Information Office news release 26-1082-SAN (9 July 2026), which reports May 2025 OEWS estimates for the MSA [1]. Civic facts are taken from the enacted text of Policy 1.7.12 as archived by the Emerging Technology Observatory [3, 7], the city’s public AI-guidelines page [8], the GovAI Coalition page and 13 March 2024 news release [4, 9], Neditch’s 18 November 2024 SPUR interview with City Privacy Officer Albert Gehami [6], the StateScoop account of the upskilling milestone [5], the Center for Data Innovation summary of the same program [10], and the 15 October 2025 city news item on a generative-AI platform RFP [20]. Secondary city-policy compilations are used only as pointers [21].

B. Civic coding

Six items are scored on $\{0, 0.35, 0.65, 1.00\}$ with written anchors in the codebook: written policy; generative-AI guidelines; handbook / inventory / review; training coverage; coalition leadership; enterprise procurement. Training coverage is the city's own 15 percent figure, not a researcher estimate [5]. The civic mean is the unweighted average of the six scores, $C = 0.80$ (equation (1)):

$$C = \frac{c_1 + \dots + c_6}{6} = 0.80. \quad (1)$$

C is a transparency index of published instruments. It is not a quality rating of the tools staff built.

C. Split ratio

Let $LQ = 3.91$ be the OEWS location quotient for computer and mathematical occupations and $T = 0.15$ the stated municipal training share. The split ratio is

$$S = \frac{LQ}{T} = 26.07. \quad (2)$$

The two rates have different denominators (MSA payroll employment versus city staff). S is therefore a descriptive contrast, not a parameter. Replacing T with the June 2027 target of about 30 percent [5] would cut S roughly in half; that counterfactual is reported as sensitivity, not as a forecast.

D. What is not identified

I do not estimate the productivity of the emergency-vehicle, contractor- review, or carbon-neutrality tools named in press accounts [5]. I do not estimate how many MSA computer jobs sit inside the city limit. I do not treat GovAI membership counts as a causal effect of San José policy on other cities.

IV. RESULTS

A. The labor-market object

Table I and Figure 1 collect the May 2025 OEWS numbers that the news release itself highlights. Computer and mathematical occupations are 13.2 percent of MSA employment against 3.4 percent nationally, a location quotient of 3.91 [1]. The group mean wage is \$97.15 an hour against \$57.73 in the United States; the area mean for all occupations is \$57.32 against \$33.54 [1]. Software developers dominate the group (87,350 jobs, LQ 7.09, \$106.59). Computer and information research scientists are fewer (2,210) but more concentrated (LQ 8.14) [1]. Web and digital interface designers sit at LQ 5.32. Network and computer systems administrators, by contrast, are near the national share (LQ 1.07) [1]. The cluster is a development and research cluster, not a uniform IT-support cluster.

These are wage-and-salary jobs in nonfarm establishments. They exclude most self-employment. They are not a count of “AI jobs.” BLS does not publish an AI occupation. The defensible statement is narrower: the MSA that contains San José has an extraordinary density of the occupations that build and test software systems, including systems that vendors now label AI.

B. The municipal object

Policy 1.7.12 is a staff-and-vendor rule, not an industrial-policy statute [3, 7]. It applies to city systems and to staff, interns, consultants, contractors, partners, and volunteers who buy, configure, develop, use, or maintain them. The CIO owns the AI Handbook. The CISO and the City Digital Privacy Officer (CDPO) are named for security, resilience, privacy, and compliance. Users must run an AI Review, collect technical documentation (the AI FactSheet) at procurement, and report harm within 24 hours [3]. Finance must ask vendors to disclose AI use. Violations can be disciplinary, including termination; third-party breaches can be contract breaches [3].

TABLE I

COMPUTER AND MATHEMATICAL OCCUPATIONS, SAN JOSE–SUNNYVALE–SANTA CLARA MSA, MAY 2025 OEWS. SOURCE: BLS 26-1082-SAN [1]. A DASH MEANS THE RELEASE PROSE DOES NOT NAME THAT WAGE OR LQ.

Occupation	Employment	LQ	Mean \$/hr
Computer and mathematical (group)	149,970	3.91	97.15
Software developers	87,350	7.09	106.59
Computer systems analysts	7,260	—	—
Software QA analysts and testers	6,480	—	—
Web and digital interface designers ^a	4,400	5.32	—
Computer and information research scientists	2,210	8.14	104.12

^aEmployment is the Table 1 row that carries the release’s named LQ of 5.32.

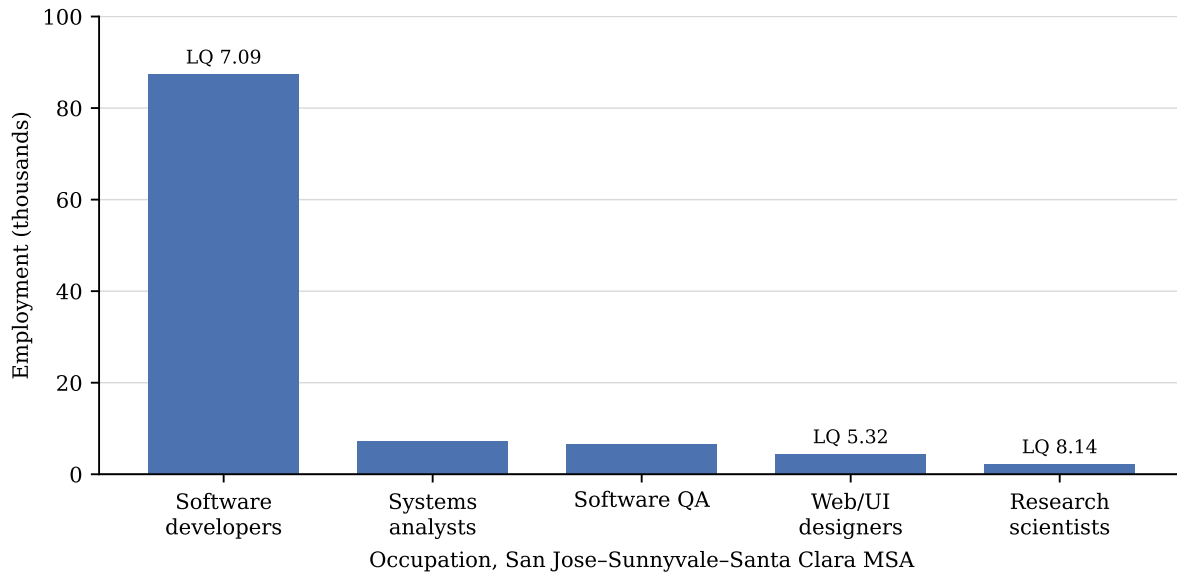


Fig. 1. Employment in selected computer occupations, San Jose–Sunnyvale–Santa Clara MSA, May 2025. Location quotients are shown only when the BLS release names them. Source: [1].

The prohibited-use list is specific: real-time and covert biometric identification; emotion analysis of face and body movement; fully automated decisions that substantially affect rights or safety without meaningful human oversight; social scoring; and cognitive behavioral manipulation [3]. Sunset language requires the CIO to halt a system that no longer produces a positive outcome, with a phased exception only when abrupt stoppage would disrupt services [3]. Public-records duties under the California Public Records Act are written into the same instrument.

That policy sits on top of earlier generative-AI guidelines for tools such as ChatGPT and Microsoft Copilot [8, 21]. The operational layer is the AI Upskilling Program with San José State University: self-paced coursework plus a 10-week cohort in which employees design tools for their own jobs [5, 10]. More than 1,000 employees, about 15 percent of the municipal workforce, had completed it when StateScoop recorded the milestone; the stated target is 2,500 employees, about 30 percent, by June 2027 [5]. Named examples—not evaluated here—include an emergency-vehicle readiness check, a contractor-submission gap finder, and an assistant tied to the city’s 2030 carbon-neutrality goal [5]. Chief Innovation Officer Stephen Caines describes the design as bottom-up and oversubscribed [5]. On 15 October 2025 the city announced an RFP for a generative-AI platform aimed at about 7,000 employees [20].

The export layer is the GovAI Coalition, conceived in 2023, opened with a November 2023 convening, and made public on 13 March 2024 with an open letter, policy templates, and the AI FactSheet [4, 6, 9].

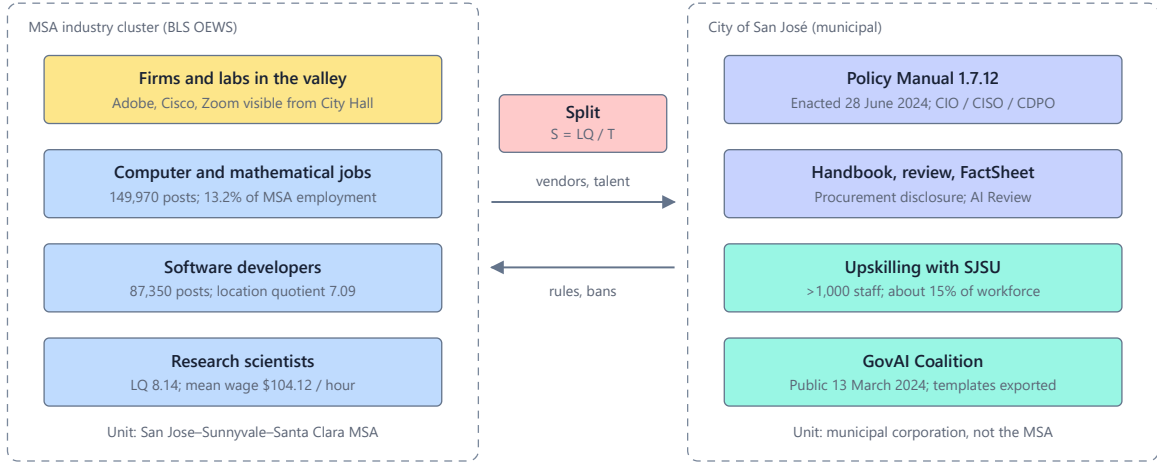
Figure concept: industry cluster versus municipal AI stack

Fig. 2. Two units, not one story. Left: MSA occupational cluster from OEWS May 2025 [1]. Right: City of San José instruments [3, 5, 6]. The split box is the stated ratio $S = LQ/T$, not a structural coefficient.

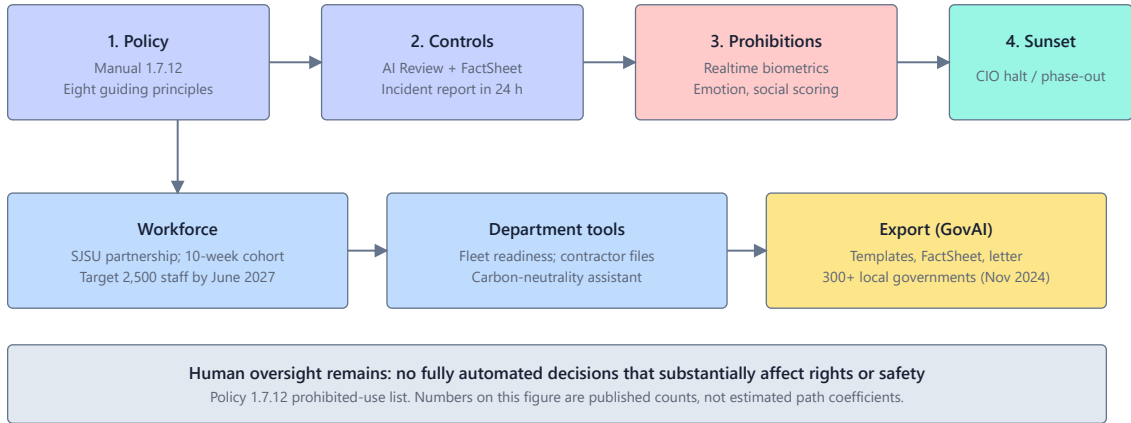
Municipal AI stack, City of San José

Fig. 3. Municipal AI stack. Policy and prohibitions from 1.7.12 [3]. Training and named tools from [5]. Coalition scale as of November 2024 from [6].

By November 2024 Gehami reported more than 800 members across 300-plus local governments, from Los Angeles to Nederland, Colorado, and said more than 100 agencies had adopted or were adopting the materials [6]. The coalition's claim is leverage in vendor conversations that no single city has alone [6]. Figure 3 draws the stack.

C. The split

Table II reports the six civic scores. The mean $C = 0.80$ is high because five of six items are enacted instruments. The weak cell is coverage: 15 percent of staff trained is a real program and still a minority of the workforce [5]. The industry location quotient is 3.91 [1]. The stated split is $S = 3.91/0.15 = 26.07$.

TABLE II
DOCUMENTARY CIVIC SCORES. ANCHORS IN THE PROJECT CODEBOOK. SOURCES: [3, 5, 6, 8, 20].

Item	Score
Written AI policy 1.7.12 (enacted 28 June 2024)	1.00
Generative-AI guidelines	1.00
Handbook / inventory / AI Review / FactSheet	1.00
Training coverage (city-stated share)	0.15
GovAI coalition leadership	1.00
Enterprise procurement (RFP announced)	0.65
Mean C	0.80
Industry LQ (computer and mathematical)	3.91
Split $S = LQ/T$	26.07

If the June 2027 30 percent target were already hit, S would be 13.03. Either number is large. It says that the occupational concentration of the valley, measured against the national mix, is an order of magnitude larger than the share of city staff the city itself says it has trained.

That contrast is the result. It does not say the city is “behind” Adobe. It says the city is doing a different job: writing rules, training a slice of a generalist workforce, and selling those rules to other cities.

V. DISCUSSION

Three implications survive the limits of the design.

First, “AI in San José” is a bad search phrase. It collapses a world-class software labor market into a city government of several thousand employees. Policy writing that uses the phrase will overstate what City Hall can do for regional industrial structure and understate what City Hall has actually done: staff rules, a review, a cohort, and a template library [3, 6].

Second, San José’s public claim is not that it has automated city services. The prohibited-use list bans the applications that civil-liberties critics usually fear first—live biometrics, emotion inference, social scoring, fully automated high-stakes decisions [3]. The upskilling examples that the city is willing to name are back-office and fleet problems [5]. That is consistent with a lean general-purpose government using prediction on documents and checklists, not with a surveillance build-out. Whether the named tools work is a separate empirical question. This paper does not answer it.

Third, the GovAI Coalition is the part of the record that travels. A privacy officer looking out at Zoom and Adobe still has to buy software from vendors who would rather not fill out a FactSheet [6]. Pooling a few hundred governments changes the procurement conversation more than it changes the MSA location quotient. Other cities can copy the templates without copying Santa Clara County’s occupational mix [6, 21]. That is the portable lesson, and it is a governance lesson.

Limits are sharp. OEWS is an establishment survey with a shutdown delay on the May 2025 panel; BLS reports that the response rate stayed in the normal range [1]. Press counts of trainees and coalition members are city-provided. I did not audit attendance files or membership rolls. C and S move if the coding anchors move; they are not estimated. A revision should add ACS PUMA-level occupation counts inside the city, a coded inventory of systems actually listed on the city’s algorithm register, and—if the city releases them—before/after workload measures on the named tools.

VI. CONCLUSION

San José contains two AI stories. The MSA that surrounds the city employs 149,970 computer and mathematical workers at 3.91 times the national occupational share, with software developers at 7.09 times [1]. The city government has enacted Policy 1.7.12, banned the high-risk uses that would make it a surveillance shop, trained about 15 percent of its staff with San José State University, and exported

templates through the GovAI Coalition [3, 5, 6]. The stated split $S = 26.07$ is a ratio of those two published rates. It is large because the industry object is extreme and the civic object is a municipal workforce, not a second Silicon Valley.

The useful sentence for other cities is the second story, not the first. Most American cities will never have an 87,350-developer payroll. They can still write a review, a prohibited-use list, a FactSheet, and a cohort. San José’s contribution to public-sector AI is that package, written in the one U.S. city where the alternative—to treat municipal AI as a side effect of living next to the industry—is most tempting, and where the city chose not to.

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