From Output Recovery to Employment Gains: Sectoral Employment Intensity and Uneven Labour-Market Recovery in Saint Lucia, 2008–2025

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Data, code, audit logs, and output tables accompany this manuscript.

Did Saint Lucia's recovery convert output into jobs, and who benefited? This paper constructs a new, reproducible sector-level evidence base by matching real gross value added (GVA) to employment for 16 industries and triangulating the resulting estimates with labour-market outcomes by sex, age, occupation, and district. The analysis spans 2008–2025, but its estimands use different, explicitly delimited windows: national annual outcomes begin in 2008; the strict annual sector model uses comparable changes in 2012–2019 and 2023–2024; and quarterly evidence extends through 2025Q2. This distinction is necessary because the official tables contain a 2010 census substitution, a non-comparable pandemic collection regime, missing survey rounds, and several identifiable table defects.

Three findings stand out. First, the recovery was job-rich over endpoints: from 2019 to 2024 employment rose 15.9 percent while real GVA rose 9.2 percent, giving a cumulative arc elasticity of 1.67. Second, this aggregate result does not imply a stable contemporaneous sector response. The strict sector fixed-effects estimate is −0.10 (95 percent cluster-robust interval −0.67 to 0.47), and neither annual, quarterly, weighted, market-sector, nor source-independent specifications reject zero. An exact accounting decomposition instead shows that the 16 matched sectors added 14,063 jobs over 2019–2024, with about 57 percent associated with output scale and 43 percent with changes in employment per unit of GVA. Third, gains were uneven. Women received 50.7 percent of the national employment increase from 2019 to 2025, yet female unemployment reached 16.9 percent in 2025 versus 8.4 percent for men. Employment among people aged 55 and older accounted for 59 percent of the measured age-group gain, while youth employment was approximately flat. Sectoral and occupational segregation changed little. The paper's contribution is therefore both substantive and methodological: it documents a job-rich

but heterogeneous recovery and shows how a data-audit-first design changes what can credibly be claimed in a small-island labour market.

Keywords: employment elasticity; sectoral employment; recovery; gender; youth; small island developing state; Saint Lucia
JEL classifications: E24, J21, J16, O47, O54

1. Introduction

An output recovery is not automatically a labour-market recovery. Production may rebound through longer hours, capital deepening, price and tax effects, or unusually rapid growth in sectors that employ relatively few people. Conversely, employment can rise faster than measured output if labour-intensive activities expand, firms rebuild staffing after a shock, participation increases, or measured output per worker falls. For policy, the central issue is therefore not simply whether Saint Lucia recovered from the pandemic and earlier shocks, but how the recovery reached workers and whether that reach was broadly shared.

This paper asks three connected questions. First, how employment-intensive has Saint Lucia's economic growth been? Second, which sectors converted output growth into employment most effectively? Third, how evenly were employment gains distributed across women and men, age groups, occupations, and districts? The empirical strategy connects industry GVA in constant 2018 prices to employment in the corresponding industry, then places that sector evidence alongside national and distributional labour-market indicators.

Saint Lucia is a valuable case for this question. It is a small, tourism-dependent economy exposed to common external shocks, natural hazards, seasonal demand, and a limited domestic labour pool. These characteristics can make aggregate output and employment turn together while producing sharply different experiences across industries and groups. Caribbean evidence has long emphasized tourism demand, public investment, credit, competitiveness, and partner-

country conditions as drivers of employment, while also finding substantial country and horizon heterogeneity (Kandil et al., 2014). Research on the Eastern Caribbean Currency Union further argues that high unemployment reflects more than weak output: labour costs, matching frictions, and structural constraints also matter (James et al., 2019). A sector-and-distribution perspective is consequently more informative than a single national elasticity.

The paper also addresses a practical barrier to applied research in small states: published data may be extensive without forming one clean panel. The Saint Lucia Central Statistical Office (CSO) makes unusually rich national-accounts and labour-force tables available online. Yet coverage labels obscure several breaks and defects. Sector employment values for 2008–2009 do not align with the post-2010 classification. The 2010 industry distribution comes from the Population and Housing Census. Pandemic-period surveys used a distinct collection regime, and the CSO explicitly cautions against direct comparison with regular Labour Force Survey (LFS) rounds. The annual age table's 2018 column contains labour-force rather than employed counts; the occupation table's 2018 column reproduces a single quarter; some 2024–2025 sex and district cells conflict with annual reports; and employment-derived indicators enter the construction of GVA for selected industries after rebasing (International Monetary Fund [IMF], 2020). These issues are not peripheral. They determine the valid estimation sample and the strength of the conclusions.

The resulting evidence produces a useful contrast. At the national level, employment rose faster than real GVA over both 2008–2019 and 2019–2024. In the recovery window, employment increased by 15.9 percent and GVA by 9.2 percent, an endpoint elasticity of 1.67. But this does not translate into a precisely estimated common annual or quarterly sector elasticity. Once sector and period effects and measurement breaks are respected, coefficients are

small, unstable across specifications, and statistically indistinguishable from zero. The recovery is better characterized as a set of distinct sector paths. Construction and wholesale and retail trade combined sizeable GVA and job gains. Information and communication expanded output while employment fell. Administrative and support services added the largest number of matched-sector jobs with little measured GVA growth, although that sector is also among those for which the GDP-rebasing documentation creates a source-coupling concern. Nonmarket or mixed-output sectors added employment despite flat or falling measured GVA.

Distributional evidence deepens this interpretation. Women obtained slightly more than half of the national employment increase from 2019 to 2025. Still, the female–male unemployment-rate gap widened to 8.5 percentage points in 2025 as female labour-force entry outpaced female employment growth. Employment gains by age were concentrated among workers aged 55 and older, while youth employment was approximately unchanged across the pre/post multi-year windows. Service and sales occupations supplied the largest stated-occupation increase. Sectoral and occupational sex-segregation indices declined only marginally. District unemployment improved broadly through 2023, but the official 2025 snapshot ranged from 7.3 percent in Gros Islet to 18.1 percent in Choiseul.

The paper makes four contributions. It supplies the first detailed, reproducible mapping of Saint Lucia's sector GVA to sector employment over the current national-accounts vintage. It extends the employment-elasticity literature to a small-island economy at a finer industry resolution than the usual agriculture–industry–services split. It combines elasticity estimates with exact scale/intensity and productivity decompositions, separating an accounting explanation of job gains from regression-based co-movement. Finally, it treats distributional reach and data provenance as central results rather than appendices.

The remainder of the paper proceeds as follows. Section 2 situates the study in the employment-intensity and structural-change literature. Section 3 describes the Saint Lucian setting. Section 4 documents sources, harmonization, and measurement breaks. Section 5 presents the empirical design. Section 6 reports national and sector findings. Section 7 examines distributional reach. Section 8 presents robustness checks and limitations. Section 9 discusses policy implications, and Section 10 concludes.

2. Employment intensity, structural change, and distributional reach

2.1 What an employment elasticity measures

The employment elasticity of growth is the percentage change in employment associated with a 1 percent change in output. Its appeal is intuitive, but its interpretation requires care. Kapsos (2005) emphasizes that an elasticity between zero and one generally combines employment growth with growth in output per worker; an elasticity above one implies that employment grew faster than output and therefore that measured output per worker fell. Neither result is inherently desirable or undesirable. Employment counts do not reveal wages, hours, informality, job security, or productivity-enhancing investment. Elasticities must therefore be read alongside output growth, unemployment, participation, and indicators of job composition.

Recent cross-country evidence reinforces the importance of heterogeneity. Using developing-economy data, Burgi, Hovhannisyan, and Mondragon-Velez (2024) find that elasticities are usually below one, vary substantially across countries and sectors, and are often lower in agriculture than in manufacturing and services. They also show that simple historical elasticity measures can be competitive for prediction. For a single small economy, however, short time series and survey variability make the precision of any common coefficient at least as important as its point estimate.

Three distinctions guide this paper. The first is between an endpoint arc elasticity and a regression elasticity. The endpoint measure summarizes cumulative proportional changes between two dates. It can answer whether employment ultimately grew faster or slower than output, but it cannot show that output changes caused employment changes. The regression coefficient describes conditional co-movement across comparable annual or quarterly changes after sector and period effects are removed. It too is descriptive because output and employment are jointly determined, and the available data do not provide an external source of identification.

The second distinction is between a common elasticity and sector-specific conversion paths. A pooled coefficient imposes an average response on industries with different technologies, institutions, seasonality, and measurement. A sector dashboard can reveal economically meaningful cases that the average obscures: job-rich expansion, jobless expansion, employment growth despite GVA contraction, or joint contraction.

The third distinction is between employment scale and employment intensity. Let E_s denote sector employment, VA_s real sector value added, and $m_s = E_s/VA_s$ employment per unit of output. Changes in employment can be decomposed exactly into an output-scale component and an employment-intensity component. This accounting identity does not identify behavioural parameters, but it quantifies how much of the observed endpoint change mechanically coincides with greater production versus a different employment/output ratio.

2.2 Structural change and a small-island economy

Structural-change research typically decomposes productivity growth into changes within sectors and the reallocation of labour across sectors (McMillan, Rodrik, & Verduzco-Gallo, 2014). The same logic is especially relevant in a small economy where one tourism season, construction cycle, public programme, or large firm can materially alter an industry estimate. A job-rich recovery can reflect expansion of labour-intensive sectors, declining output per worker

within sectors, or movement toward sectors with different productivity levels. These mechanisms have different policy meanings.

Saint Lucia's structure also complicates measurement. Accommodation and food services, trade, transport, administrative support, public administration, education, and health each combine different market conditions and output concepts. Public and mixed-output services are often measured from input costs rather than market transactions. Real-estate GVA includes imputed services of owner-occupied dwellings, whereas LFS real-estate employment refers to people engaged in property activities. The two real-estate concepts are therefore not matched, even though their labels appear similar. The primary panel excludes real estate for this reason.

The IMF's rebasing report adds another complication. For parts of manufacturing and selected service activities, employment-based indicators from national insurance records enter constant-price output estimation (IMF, 2020). If an output series partly reflects an employment indicator, regressing LFS employment on that output can create mechanical source coupling. The paper addresses this directly by estimating a source-independent sensitivity that excludes manufacturing, professional and technical services, administrative support, and other services; a still stricter specification also excludes public administration, education, and health.

2.3 Why distribution belongs in the growth-to-jobs question

Aggregate job growth can coexist with unequal access. Prior work on Saint Lucia documents relatively strong female labour-force participation alongside persistent unemployment and labour-income disadvantages, particularly among workers without higher education and among women with care responsibilities (de Paz, 2023; Park & Hannan, 2024). Sector and occupation segregation can make the same recovery produce different outcomes for women and men. Age structure also matters: job growth concentrated among older workers has a different

social meaning from stronger school-to-work transitions. District disparities may identify spatial bottlenecks even when national unemployment falls.

This paper therefore treats “who benefited?” as a set of transparent comparisons, not a composite inclusiveness index. It measures gains by sex and sector, by broad age band and sex, by stated occupation and sex, and through district unemployment rates. Multi-year means reduce dependence on individual survey rounds. Because cell-level sampling errors are not published consistently, these results remain descriptive and avoid formal ranking claims.

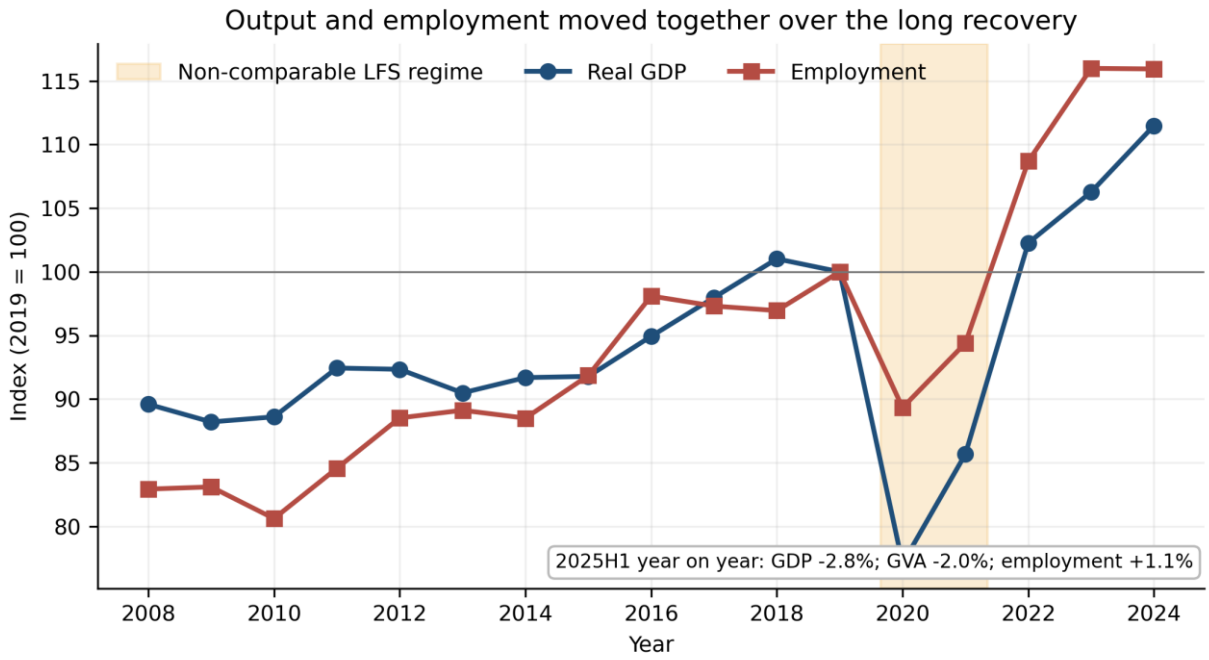
3. Economic and labour-market context

Saint Lucia’s recovery must be interpreted against three episodes. The first is the slow post-global-financial-crisis period. Between 2008 and 2019, national employment increased from 69,644 to 83,977 while real GVA rose from EC$4.23 billion to EC$4.82 billion in 2018 prices. The second is the pandemic shock, when tourism and related services contracted abruptly. Real GDP and employment both fell, but the labour estimates for 2020–2021 were collected under a distinct regime and cannot be treated as ordinary points in the same series. The third is the reopening and recovery. By 2024, real GVA had reached EC$5.27 billion and employment 97,354, both above their 2019 levels.

The recovery continued to change in 2025. Annual employment reached 100,210, but the unemployment rate rose from 10.8 percent in 2024 to 12.6 percent in 2025. This apparent tension reflects labour supply: the labour force increased by 5,548 while employment increased by 2,856. Female labour-force participation was central. The female labour force rose by 6,358 between 2024 and 2025, whereas the male labour force fell by 810. The labour-force participation rate increased from 69.3 to 72.5 percent. Thus, higher unemployment in 2025 does not mean employment fell; it means labour-force entry outpaced job creation.

The available output data also warrant careful labeling. Annual national accounts end in 2024, while quarterly GVA and GDP extend through 2025Q2. Comparing the average of the first two quarters, employment was 1.1 percent higher in 2025H1 than in 2024H1, whereas real GVA was 2.0 percent lower and market-price GDP 2.8 percent lower. Because output contracted, these figures do not define a meaningful positive-growth employment elasticity. They instead show short-run divergence between employment and output stocks/flows. The larger GDP decline partly reflects weaker product taxes, which have no direct sector-employment counterpart. Basic-price GVA is therefore the primary output concept below.

Figure 1. ***National output and employment, 2008–2024***



Note: Shading marks 2020–2021, when LFS collection was not comparable. Annual real GDP ends in 2024.

4. Data, harmonization, and audit decisions

4.1 Sources and coverage

The analysis uses official CSO national-accounts and labour-force tables frozen on 11 August 2026, supplemented by the published 2019, 2024, and 2025 LFS annual reports and the IMF rebasing documentation. The national accounts are the current, backcast 2018-price vintage

and are not spliced to older-base series. Industry analysis uses GVA at basic prices; national robustness results also use GDP at market prices.

Table 1. ***Data sources, coverage, and analytical role***

Series	Coverage	Unit	Role
Real GVA by industry	Annual 2006–2024; quarterly 2006Q1–2025Q2	EC$ million, constant 2018 prices	Primary output measure
Employment by industry and sex	Annual 2008–2025	Persons	Sector levels; valid post-2010 classification
Employment by industry	Quarterly 2010Q1–2025Q4	Persons	Quarterly robustness through 2025Q2
Main labour-force indicators	Annual through 2025; quarterly through 2025	Persons and rates	Canonical aggregate outcomes
Employment by age and sex	Annual 2010–2024	Persons	Distribution, excluding invalid 2018
Employment by occupation and sex	Annual 2010–2025	Persons	Stated-occupation composition; exclude 2018
District unemployment by sex	Annual 2010–2025	Percent	Web changes through 2023; report snapshot for 2025
LFS reports and rebasing report	Selected methodological years	Documentation	Validation, corrections, and source-coupling audit

Note. Annual sector output ends in 2024. The 2025 extension uses quarterly output through Q2 and annual labour outcomes.

The title's 2008–2025 span refers to the full national and distributional evidence base, not one balanced sector regression. National employment context begins in 2008. The harmonized annual sector levels are available from 2010 to 2024, but the strict regression uses only comparable first differences ending in 2012–2019 and 2023–2024. The annual national-accounts series ends in 2024. Quarterly output and labour evidence extends the study through 2025Q2, and annual labour outcomes extend through 2025.

4.2 Sector crosswalk

The primary panel contains 16 sectors: agriculture; manufacturing; utilities; construction; wholesale and retail; accommodation and food; transport and storage; information and communication; financial and insurance services; professional and technical services; administrative and support services; public administration; education; health and social work; arts and recreation; and other services. Electricity and water are combined into utilities because both sides have partial label matches. Administrative and support GVA is constructed as the sum

of renting of machinery and equipment, travel agents and tour operators, and other administrative and support services.

Mining and quarrying is excluded because it is small, intermittently missing, and affected by an apparent 2025Q2 table displacement. Real estate is excluded because the output and employment concepts differ. Household employers/domestic services are excluded because the match is partial. Extraterritorial organizations have no output counterpart, and "Not Stated" is not an industry. The resulting matched sectors cover 78,306 employed persons in 2019 and 92,369 in 2024, or 93.2 and 94.9 percent of canonical national employment, respectively.

4.3 Measurement regimes and known defects

The central design choice is to treat comparability as an empirical restriction rather than a footnote. Four restrictions matter most.

First, advertised sector values for 2008–2009 are not usable under the current industry labels. Their totals do not reconcile to the canonical employment series, several categories are absent, and values appear under incompatible headings. These years remain in national context only. Second, 2010 industry employment comes from the Population and Housing Census. It is retained as a descriptive level, but the transition into the 2011 LFS is excluded from the regression. Third, 2020–2021 constitutes a separate pandemic measurement regime. The 2022 LFS documentation states that face-to-face interviewing resumed and warns against comparison with 2020–2021. The primary models therefore omit changes into, within, and out of that regime. Fourth, 2023Q2–Q3 carries a census-fieldwork quality caution; the quarterly sensitivity omits changes that use these rounds as bases.

The audit also identifies table-specific defects. The 2018 annual employed-by-age column exactly reproduces labour-force counts rather than employment counts and is set missing. The 2018 annual occupation column reproduces 2018Q4 and is also set missing.

Occupation totals in 2021 and 2025 exclude cases with no stated occupation; occupational composition therefore uses stated occupations as the denominator. The webpage's 2025 male industry total and "Not Stated" cell reproduce or imply quarterly rather than annual values; they are replaced with the official annual-report values. The 2024 extraterritorial sex components do not reconcile and are excluded. District web values for 2024–2025 conflict with annual-report snapshots, so web-series changes end in 2023 and the official report supplies a separate 2025 snapshot.

Box 1. ***Measurement breaks that determine the estimation sample***

Series	Period	Action
annual industry employment	2008–2009	exclude sector cells; retain canonical aggregate employment
annual industry employment	2010	descriptive benchmark only; omit transition into 2011
LFS employment series	2020–2021	exclude growth transitions into, within, and out of regime
annual age by sex	2018	set year missing
annual occupation by sex	2018	set year missing
annual industry by sex	2025	use official annual report values 52,831 and 1,249
quarterly industry employment	2025Q2	do not reclassify; affected manufacturing observation remains missing
district unemployment web table	2024–2025	use web series only through 2023 for change; use report for 2025 snapshot

Note. The complete exception log, frozen source hashes, and correction log are included in the replication package.

No unavailable observation is recoded to zero, and no missing survey round is interpolated. The replication archive preserves the value as published, the numeric analytical value, a flag, the source URL, access date, and source-file hash. The component-validation file also retains non-reconciling years rather than forcing identities. In 2020, published industry components fall short of canonical employment by 3,546; in 2024 they exceed it by 278. Both are disclosed, and neither difference is used to modify valid substantive cells.

5. Empirical strategy

5.1 Endpoint employment intensity

For dates a and b, the cumulative arc elasticity is

$$\eta[a,b] = \ln(E\_b / E\_a) / \ln(Y\_b / Y\_a),$$

where E is employment and Y is real output. Basic-price GVA is primary; market-price GDP is a robustness measure. The statistic is reported only when output growth is positive and material. A value above one means employment increased proportionally faster than measured output, not that welfare or job quality necessarily improved.

5.2 Annual and quarterly sector models

The strict annual panel estimates

$$\Delta\ln(E\_s,t) = \alpha\_s + \tau\_t + \beta\, \Delta\ln(VA\_s,t) + \varepsilon\_s,t,$$

where α_s are sector fixed effects and τ_t are year fixed effects. The coefficient β is a conditional co-movement parameter, not a causal effect. The main sample has 16 sectors and 160 sector-year changes: 2012–2019 and 2023–2024. Standard errors use a finite-sample-adjusted one-way sector-cluster covariance, with t critical values based on the number of clusters. Because 16 clusters remain few, the paper also reports two-sided restricted wild-cluster bootstrap p-values using 999 Rademacher draws (Cameron, Gelbach, & Miller, 2008; Pustejovsky & Tipton, 2018).

Sensitivity specifications exclude nonmarket or mixed-output sectors; exclude source-coupled sectors; exclude both groups simultaneously; and weight observations by lagged employment. The quarterly model uses year-on-year changes to control seasonality:

$$\Delta_4\ln(E\_s,q) = \alpha\_s + \tau\_q + \beta\_Q\, \Delta_4\ln(VA\_s,q) + \varepsilon\_s,q.$$

It retains only regular, non-interpolated survey rounds and has an additional sensitivity removing 2024Q2–Q3 changes whose base observations carry the 2023 census-fieldwork caution. Cross-sector dependence and serial correlation are plausible in such a small economy; the quarterly coefficients are therefore treated as robustness evidence rather than a precision advantage (Driscoll & Kraay, 1998).

National annual and quarterly regressions use Newey–West covariance estimates with one and four lags, respectively. Their very small effective samples make them appendix diagnostics. The endpoint measures and sector accounting are the main national evidence.

5.3 Exact employment decomposition

For each sector, define employment intensity m = E/VA. The observed endpoint change is decomposed exactly as

$$\Delta E = \bar{m}\Delta VA + V\bar{A}\Delta m,$$

where bars are the arithmetic means of endpoint values. The first term is the output-scale component: the employment change associated with the observed GVA change at average employment intensity. The second is the employment-intensity component: the change associated with a different employment/GVA ratio at average GVA. Negative components are allowed. The identity is descriptive and does not attribute causal responsibility.

The matched-sector productivity counterpart uses P = Σ_s θ_s p_s, where p_s = VA_s/E_s and θ_s is the sector employment share. The exact symmetric decomposition separates changes in apparent GVA per worker within sectors from the reallocation of employment shares across sectors. It is reported because a high employment elasticity mechanically relates to lower measured output per worker, but it is not a measure of hours, wages, job quality, or technical efficiency.

5.4 Distributional comparisons

Distributional outcomes use multi-year means to reduce sensitivity to a single LFS estimate. Sector-by-sex comparisons use 2017–2019 and 2023–2025. Age comparisons use 2016, 2017, and 2019 versus 2022–2024, excluding invalid 2018 and the pandemic regime. Age groups are consolidated to 15–24, 25–54, and 55 or older. Occupation comparisons use 2016, 2017, and 2019 versus 2023–2025 and condition on stated occupations. District comparisons use

the published web series for 2017–2019 versus 2022–2023, then present the official 2025 annual-report snapshot separately.

Sex segregation is summarized with the Duncan index, one half of the sum across categories of the absolute difference between men's and women's employment shares. It ranges from zero under identical distributions to one under complete separation. Given survey sampling and the absence of cell-level uncertainty estimates, small index changes are interpreted as persistence rather than statistically demonstrated convergence.

6. Results: from aggregate recovery to sector paths

6.1 The aggregate recovery was job-rich over endpoints

Table 2 shows that employment grew faster than output over the two long windows. Between 2008 and 2019, employment rose 20.6 percent while real GVA rose 14.1 percent, giving an arc elasticity of 1.42. Between 2019 and 2024, employment rose 15.9 percent and GVA 9.2 percent, giving an elasticity of 1.67. Restricting the recovery to 2022–2024 yields a lower elasticity of 0.78: employment increased 6.7 percent while GVA rose 8.7 percent. The apparent job intensity of the initial return to regular face-to-face measurement was therefore stronger than the later recovery margin.

Table 2. ***National endpoint output and employment intensity***

Period	Employment change (%)	Real GVA change (%)	Real GDP change (%)	GVA arc elasticity
2008–2019	20.6	14.1	11.6	1.42
2019–2024	15.9	9.2	11.5	1.67
2022–2024	6.7	8.7	9.0	0.78
2024H1–2025H1	1.1	-2.0	-2.8	–

Note. Output flows in the H1 row are quarterly averages; using sums produces the same growth rates. Employment is a stock estimate and is averaged. Elasticity is not reported when output contracts.

Market-price GDP gives the same qualitative ordering but smaller endpoint elasticities – 1.70 for 2008–2019, 1.36 for 2019–2024, and 0.75 for 2022–2024 – because product taxes

changed differently from GVA. The 2025H1 comparison points in the opposite direction: employment was 1.1 percent higher, while GVA and GDP were lower. The paper does not label a negative ratio from this episode as an employment elasticity because the substantive question is employment generated by positive output growth.

The endpoint results answer the first research question in one sense: Saint Lucia's long recovery was employment-intensive. They do not show a stable short-run production-to-jobs coefficient. The break-aware national annual GVA regression produces $\beta = 0.006$ with a wide HAC interval; the quarterly GVA estimate is 0.185 and likewise imprecise. With only 11 comparable annual changes, these regressions are diagnostics rather than headline estimates.

6.2 No stable common sector elasticity is identified

The strict annual sector model estimates $\beta = -0.100$, with a 95 percent cluster-robust interval from −0.671 to 0.471 and a wild-cluster p-value of .696. Excluding public administration, education, and health gives −0.118. Excluding sectors whose GVA construction may use employment indicators gives 0.061. Applying both restrictions produces −0.002. Weighting by lagged sector employment gives 0.148. None is statistically distinguishable from zero, and the wide intervals include economically meaningful negative and positive values.

The quarterly year-on-year estimates tell the same story. The break-aware coefficient is −0.055 (95 percent interval −0.419 to 0.309). Removing observations whose year-on-year base carries the 2023 caution changes it only to −0.052. In the clean market/source-independent sample, the estimate is 0.130, again imprecise. The 2019–2024 cross-sector long difference is positive at 0.172, but its HC3 interval is −0.686 to 1.030 and R^2 is only .021.

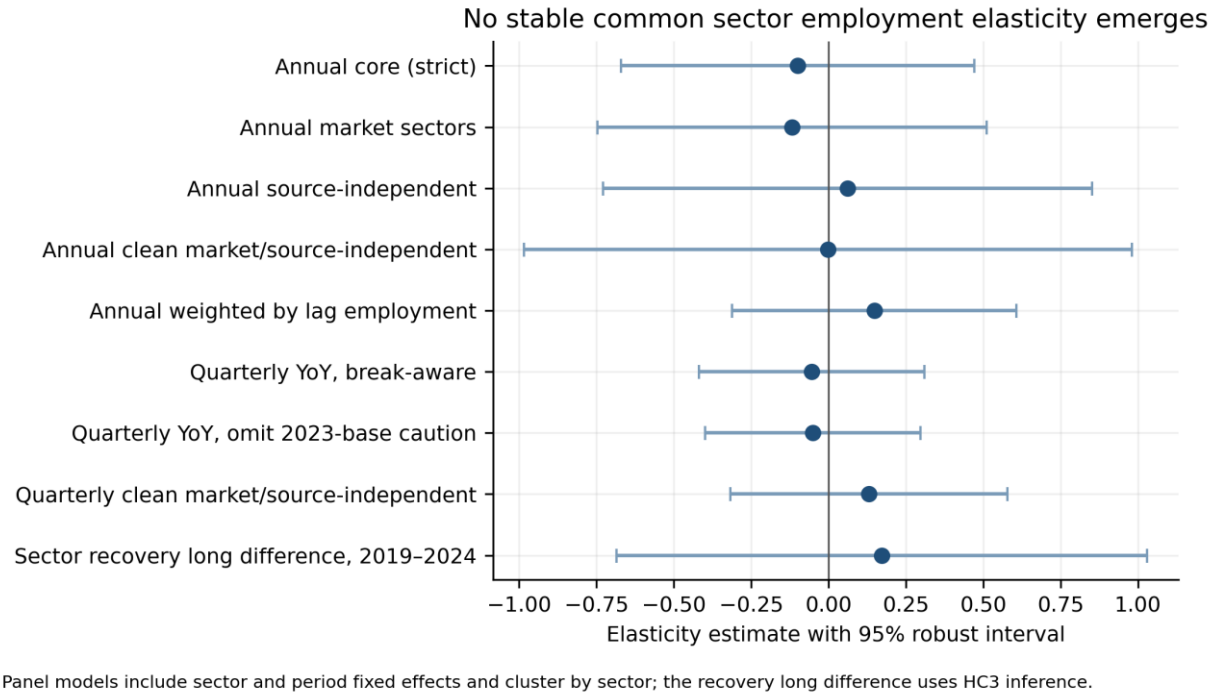
Table 3. ***Sector employment-intensity estimates***

Specification	β	Robust SE	95% interval	Wild p	N	Sectors
Annual core (strict)	-0.100	0.268	[-0.671, 0.471]	0.696	160	16
Annual market sectors	-0.118	0.288	[-0.746, 0.510]	0.685	130	13

Specification	β	Robust SE	95% interval	Wild p	N	Sectors
Annual source-independent	0.061	0.359	[-0.730, 0.852]	0.842	120	12
Annual clean market/source-independent	-0.002	0.426	[-0.984, 0.980]	0.991	90	9
Annual weighted by lag employment	0.148	0.216	[-0.312, 0.607]	0.567	160	16
Quarterly YoY, break-aware	-0.055	0.171	[-0.419, 0.309]	0.774	573	16
Quarterly clean market/source-independent	0.130	0.194	[-0.318, 0.577]	0.552	322	9
Sector recovery long difference, 2019–2024	0.172	0.400	[-0.686, 1.030]	–	16	–

Note. Annual and quarterly panels include sector and period fixed effects. Intervals use finite-sample-adjusted sector-cluster covariance with t critical values; Wild p is a restricted Rademacher wild-cluster bootstrap p-value (999 draws). The long difference uses HC3 and has no cluster count.

Figure 6. ***Robustness of the common sector employment-elasticity estimate***

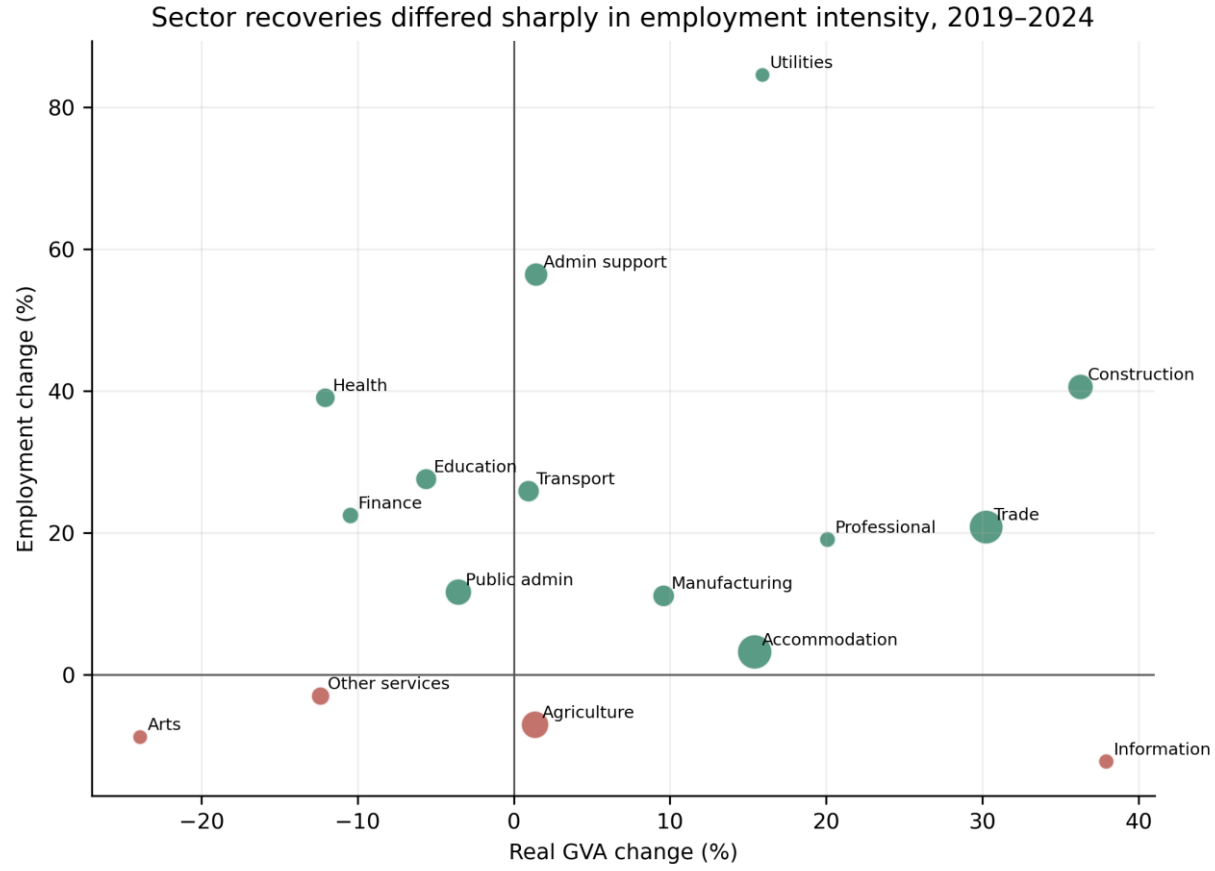


These results are not evidence that output is irrelevant to employment. Rather, annual LFS sampling variation, common shocks, lags, sector-specific technology, post-shock staffing adjustments, nonmarket output measurement, and simultaneous determination prevent a stable common elasticity from being recovered in this panel. The contrast with the endpoint result is itself informative. Employment and GVA rose strongly over the recovery, but sectors did not follow a uniform year-to-year conversion rule.

6.3 Which sectors added jobs?

Across the 16 matched sectors, employment increased by 14,063 between 2019 and 2024. Administrative and support services recorded the largest endpoint gain, 3,012, followed by wholesale and retail trade (2,796), construction (2,729), health and social work (1,212), and transport and storage (1,083). These rankings require qualification. Administrative and support GVA is constructed from three national-accounts rows and belongs to the source-coupling sensitivity. Health is a mixed market/nonmarket sector. Manufacturing and financial services switch sign under the multi-year endpoint sensitivity, illustrating why exact rankings should not be treated as structural parameters.

Figure 2. ***Sector recovery paths, 2019–2024***



Bubble area scales with 2019 employment. Green indicates a net employment gain; red a loss.

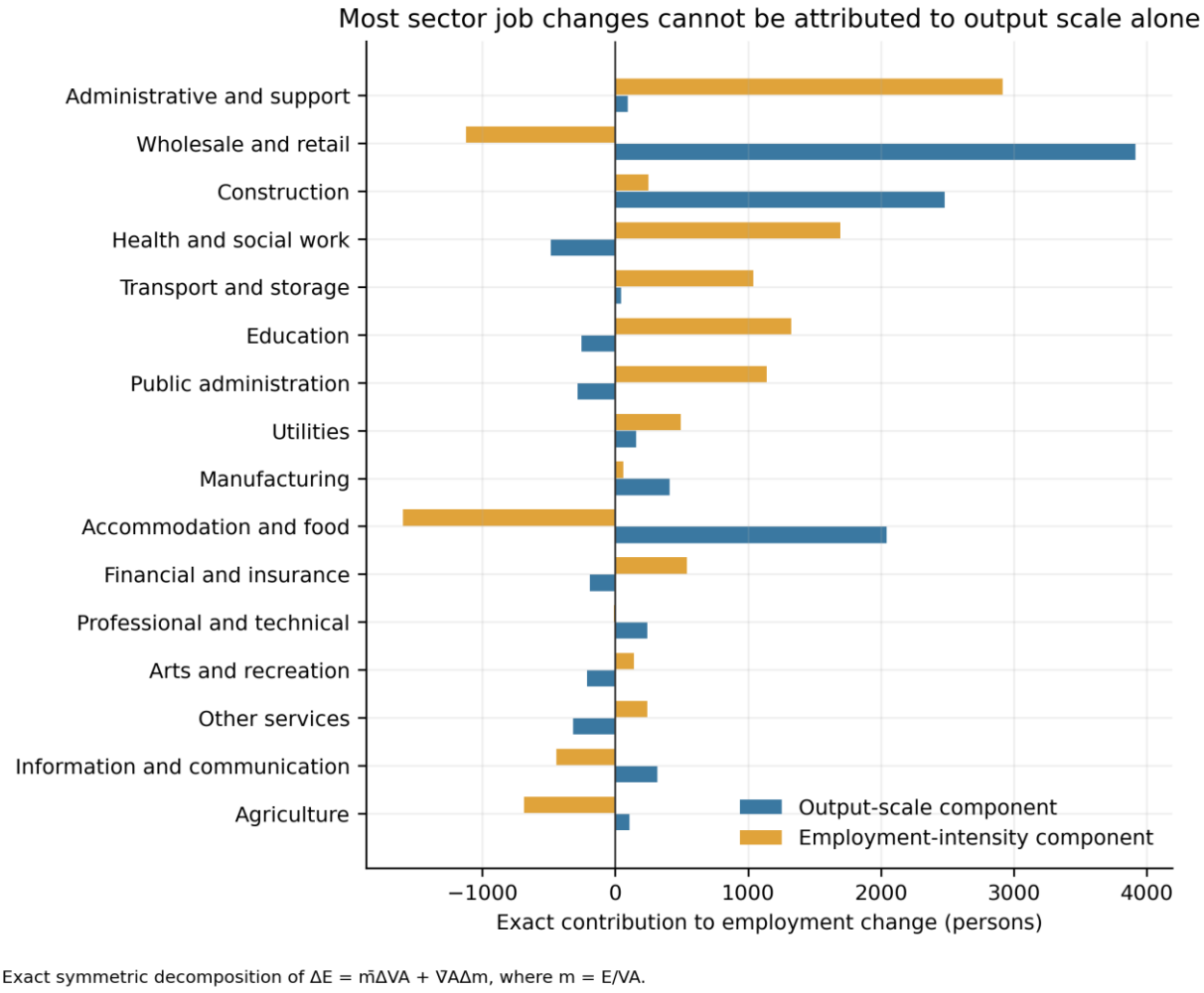
Among sectors with real GVA growth above 2 percent and nonnegative job growth, endpoint conversion elasticities are 1.10 in construction, 0.95 in professional and technical services, 0.72 in wholesale and retail trade, and 0.22 in accommodation and food. Manufacturing's endpoint ratio is 1.15, but its employment direction reverses under the multi-year sensitivity. Utilities has a ratio of 4.15, driven by an 84.6 percent employment increase from a small base and therefore unsuitable for a league-table interpretation.

Information and communication is the clearest jobless expansion: GVA rose 37.9 percent while employment fell 12.3 percent. Agriculture's GVA changed by only 1.4 percent while employment fell 7.1 percent, so its ratio is suppressed as denominator-sensitive. Administrative support and transport also have near-zero GVA changes, making arc ratios unstable. Education, health, public administration, and finance added employment while measured GVA contracted; these are legitimate observations, not positive-growth conversion elasticities.

6.4 Output scale versus employment intensity

The exact decomposition provides a clearer accounting of the 14,063 matched-sector job increase. Output scale accounts for approximately 8,076 jobs, or 57.4 percent. Changes in employment per unit of GVA account for approximately 5,987, or 42.6 percent. Construction and trade gains were predominantly scale-associated. Administrative support, health, transport, education, public administration, finance, and utilities gained more through the intensity component. In accommodation and food, the scale component was large and positive but was partly offset by lower employment intensity.

Figure 3. ***Exact scale and employment-intensity components of sector job changes***



Exact symmetric decomposition of ΔE = m̃ΔVA + ṼAΔm, where m = E/VA.

This decomposition helps reconcile the aggregate and regression findings. The economy can accumulate a job-rich endpoint even when the within-sector annual slope is weak, because sector-specific changes in employment intensity and the composition of output matter. It also cautions against treating all job growth as output-generated. In the accounting identity, nearly two fifths of the matched-sector gain would be missed by an approach that assumed a fixed employment/output relationship.

The productivity counterpart is consistent with this result. Matched-sector GVA rose 9.8 percent while employment rose 18.0 percent, so apparent real GVA per employed person fell 6.9 percent. Relative to the 2019 productivity level, about 5.5 percentage points of this decline arose

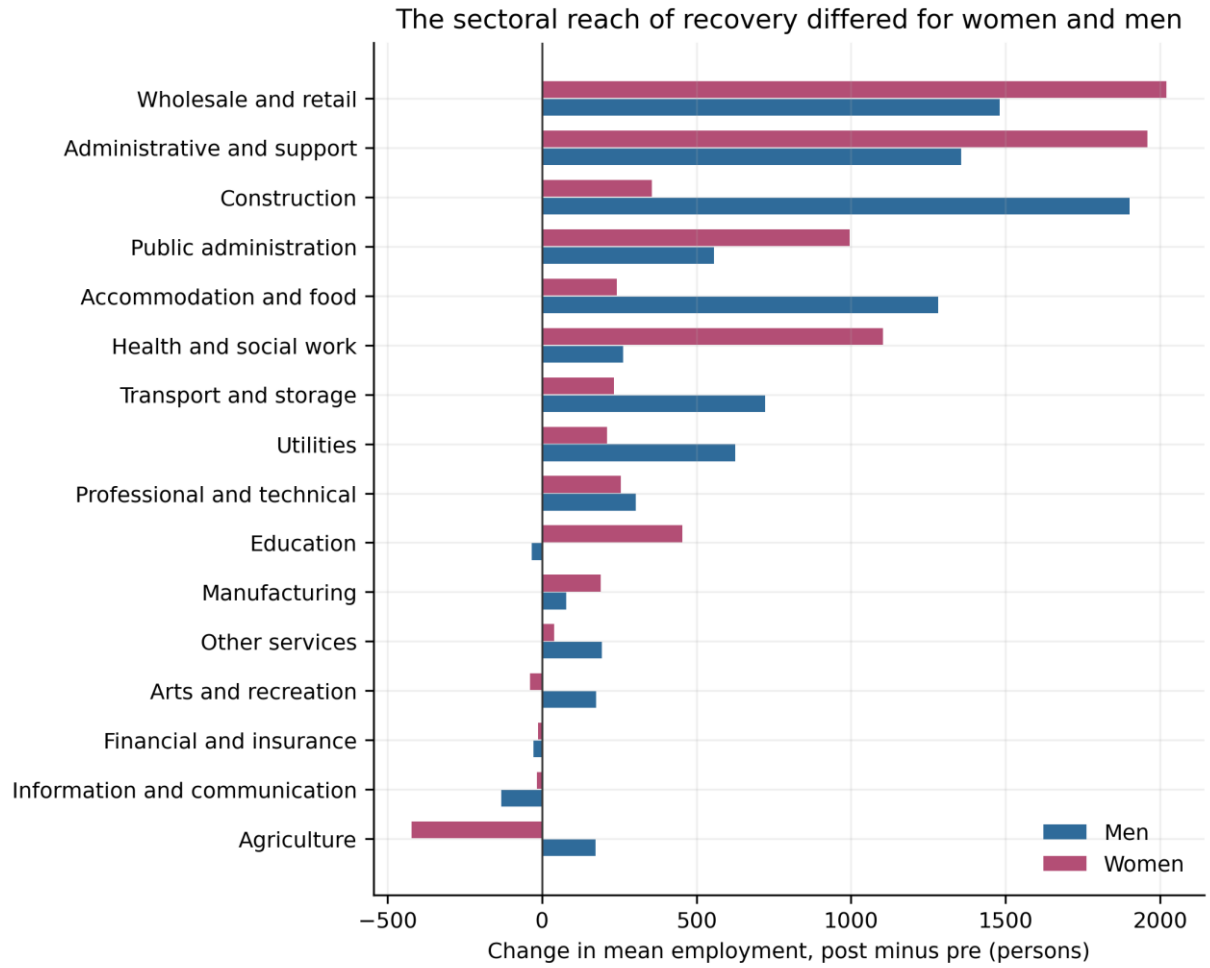
within sectors and 1.4 points from employment-share reallocation. This is the arithmetic counterpart of a job-rich recovery. It should not be read as proof of declining worker efficiency: employment counts do not measure hours, the LFS sector estimates are noisy, public and mixed-output activities are included, and selected GVA series have source-coupling concerns.

7. Results: who benefited?

7.1 Women captured jobs, but unemployment inequality widened

National employment increased by 16,233 between 2019 and 2025. Women accounted for 8,225 of those jobs, or 50.7 percent, and men for 8,007, with the one-person discrepancy due to published rounding. Sector patterns differed sharply. Women's largest multi-year mean gains were in wholesale and retail trade, administrative support, health, and public administration. Men's largest gains were in construction, trade, administrative support, accommodation and food, and transport. Women's employment fell in agriculture, while men's increased modestly; construction remained overwhelmingly male even though women's count rose.

Figure 4. ***Changes in sector employment by sex***



Pre = 2017–2019 mean; post = 2023–2025 mean. Core matched sectors only.

Job gains did not eliminate disadvantage. In 2025, women's unemployment rate was 16.9 percent, double the male rate of 8.4 percent. The 8.5-point gap widened sharply from 2024. The proximate reason is labour-force re-entry: the female labour force increased by 6,358 in 2025, compared with a decline of 810 for men. More women obtained work, but still more entered or re-entered unemployment. This distinction is important for policy. A rising unemployment rate can accompany successful activation if job creation does not initially match new labour supply.

Sector segregation changed little. The Duncan index declined from .353 in 2017–2019 to .347 in 2023–2025. A change of six thousandths is better described as persistence than

convergence. The recovery altered employment levels more than the sector distribution of women and men.

7.2 Gains were concentrated among older workers

Across the valid age windows, employment among people aged 55 and older increased by about 7,470, representing 59.1 percent of the total measured age-group gain. Prime-age employment increased by approximately 5,252. Youth employment changed by −74, effectively flat relative to survey variability. Within youth, women's employment increased by about 402 while men's fell by 475. These are employment counts, not age-specific employment rates; population ageing and labour-force participation can contribute to the pattern.

The result nonetheless raises a transition concern. Annual youth unemployment was 20.0 percent in 2025, above the national rate. A recovery concentrated among older workers may reflect longer working lives and successful retention, but it does not by itself improve entry opportunities for school leavers. Tracking hires, separations, hours, and school-to-work transitions would be a valuable extension if microdata become available.

7.3 Occupational gains were broad but segregated

Among people with a stated occupation, service and sales work supplied the largest increase between the pre and post windows: about 4,642, or 28.3 percent of the summed stated-occupation gain. Professional employment increased by about 2,513; clerical support by 2,235; technicians by 1,934; and elementary occupations by 1,918. Craft/trades and skilled agricultural occupations grew much more slowly.

The occupational Duncan index declined from .396 to .386. As with sectors, the change is small. Women remained concentrated in service/sales, professional, technical, and clerical occupations, while men remained more prominent in craft/trades, plant and machine operation, and skilled agriculture. The recovery expanded both higher-skill and lower-skill occupational

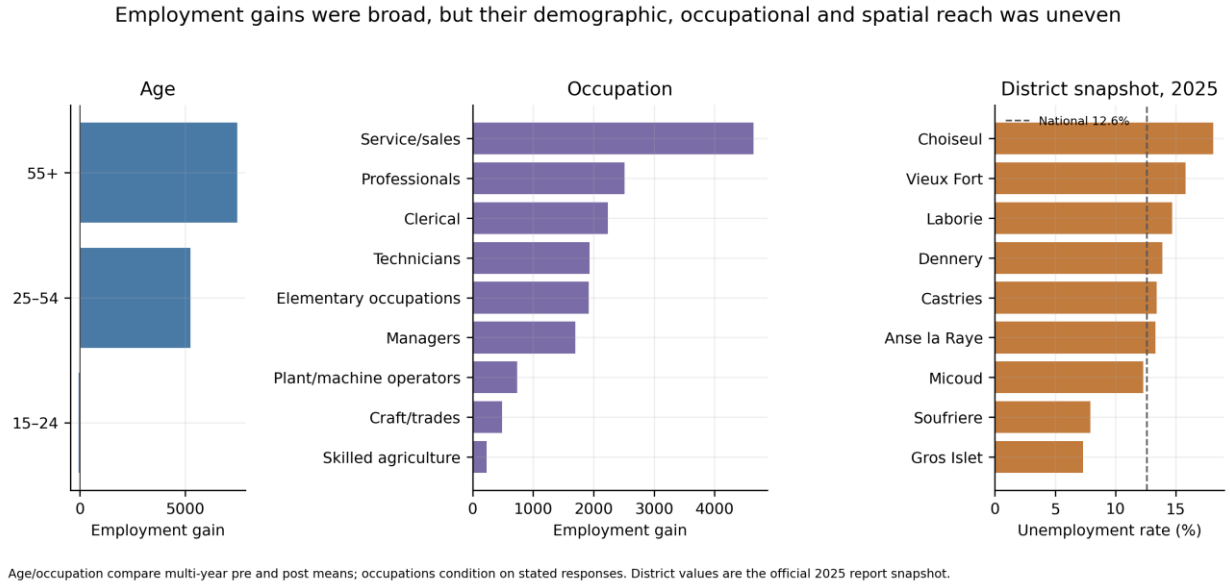
counts without materially dissolving occupational segregation. Because 2021 and 2025 published totals omit non-stated occupations, all shares and gains in this subsection condition on a stated response.

7.4 Spatial recovery remained uneven

The comparable district web series shows unemployment falling in every reporting area between the 2017–2019 mean and the 2022–2023 mean. Declines were largest in Choiseul, Soufriere, and Vieux Fort and smallest in Castries. These comparisons are descriptive because district sampling errors are not published and the web series conflicts with annual-report snapshots in 2024–2025.

The official 2025 annual report provides the current snapshot. Unemployment ranged from 7.3 percent in Gros Islet and 7.9 percent in Soufriere to 18.1 percent in Choiseul, 15.8 percent in Vieux Fort, and 14.7 percent in Laborie, against a national rate of 12.6 percent. These 2025 levels are not spliced onto the earlier web panel. They show that spatial dispersion remained substantial even after broad recovery.

Figure 5. ***Distributional reach by age, occupation, and district***



8. Robustness, interpretation, and limitations

8.1 What survives alternative specifications

Four conclusions survive the paper's main sensitivities. First, cumulative national employment grew faster than GVA over 2008–2019 and 2019–2024, while the narrower 2022–2024 recovery had an elasticity below one. Second, no annual or quarterly regression identifies a precise common sector elasticity. Third, construction and trade are robust positive-output, positive-employment recovery cases, while information and communication is a robust output-expansion, employment-contraction case. Fourth, distributional gains coexist with persistent sex segregation, flat youth employment, and substantial district unemployment dispersion.

The strict market/source-independent sensitivity directly addresses the two largest output-measurement objections. Its annual coefficient is −0.002, with 90 observations across nine sectors and an interval of −0.984 to 0.980. Its quarterly coefficient is 0.130, with 322 observations and an interval of −0.318 to 0.577. Neither changes the inference. Removing 2023-base caution observations from the quarterly panel also changes little.

Multi-year endpoint means are more consequential for individual sector rankings. Manufacturing adds 473 jobs from 2019 to 2024 but declines by 487 when the 2017–2019 mean is compared with the 2023–2024 mean. Financial services similarly switches sign. Construction, trade, administrative support, health, transport, education, and public administration retain positive directions. The manuscript therefore uses exact endpoint changes for transparent accounting, flags direction reversals, and avoids a definitive sector league table.

8.2 Limits of inference

The first limitation is identification. Output and employment are simultaneously determined. No instrument or quasi-experimental shock isolates labour demand, and the coefficients should not be read causally. The second is sample size. Only 16 matched sectors and

10 comparable annual changes remain in the strict panel. Cluster-robust intervals are wide, and even wild-cluster tests have limited power. The third is measurement. LFS industry cells are sample estimates, yet cell standard errors and replicate weights are not published in the web tables. Sector counts can be volatile, and annual values are not always simple averages of available quarters.

The fourth limitation is output construction. Constant-price GVA is chain-linked and may not be additive at fine detail in all early years. The decomposition is therefore performed on the sum of matched top-level sector rows, not forced to equal total GVA. Public and mixed-output services are measured differently from market sectors. The national-accounts rebasing documentation also reports employment-based indicators for selected activities. The source-independent sensitivity reduces, but cannot eliminate, shared-source risk.

The fifth limitation is scope. Employment counts do not reveal hours, earnings, informality, multiple jobholding, contract type, vacancies, or firm entry and exit. A decline in GVA per employed person could reflect shorter hours, rapid low-productivity hiring, measurement lag, or shifts in job quality. Distributional counts also do not control for population changes within age or district groups. District results lack published sampling uncertainty. Finally, the annual matched output–employment panel ends in 2024; 2025 is represented by the quarterly output extension and annual labour outcomes.

These limits narrow the claims but do not remove the study’s value. A transparent null on a common sector elasticity, combined with exact decompositions and a documented audit, is more informative than a precise coefficient obtained by treating incompatible observations as comparable.

9. Discussion and policy implications

The findings suggest that Saint Lucia should monitor recovery through a portfolio of labour-market indicators rather than a single growth forecast. Four implications follow.

First, sector strategy should distinguish scale-led expansion from intensity-led hiring. Construction and trade created large numbers of jobs alongside sizeable GVA growth. Policies that relieve credible supply constraints in such sectors – skills certification, procurement predictability, infrastructure sequencing, and access to working capital – may support both output and employment. But sectors dominated by intensity changes require a different diagnosis. Administrative support's large job gain with near-flat measured GVA may reflect business-process changes, labour hoarding, measurement, or source coupling. It should trigger investigation, not an automatic subsidy.

Second, the information and communication result warrants attention. Output rose strongly while employment fell, consistent with productivity growth, automation, outsourcing, or a shift toward higher-value activity. This is not necessarily a policy failure. The question is whether displaced or excluded workers can access new digital occupations. Training policy should be linked to employer demand and placement outcomes rather than enrolment alone.

Third, female employment gains should not obscure the 2025 unemployment gap. The combination of strong female labour-force entry and incomplete job absorption makes activation services especially relevant: childcare, transport, job matching, flexible work arrangements, and enforcement of equal opportunity. Prior Saint Lucia research highlights care constraints and persistent earnings disadvantages (de Paz, 2023; Park & Hannan, 2024). The sector results add where employment expanded, helping target services toward trade, administrative support, health, public services, and tourism-linked activities while also widening pathways into male-dominated construction and technical work.

Fourth, youth and place require dedicated metrics. Flat youth employment and a 20 percent youth unemployment rate are not solved by aggregate job growth. Apprenticeships, first-job wage support, career guidance, and technical programmes should be evaluated using completion, placement, retention, and earnings – not participant counts. District dispersion suggests that national programmes need spatial delivery and transport access. Choiseul, Vieux Fort, Laborie, and Dennery had above-national unemployment in the official 2025 snapshot, but small-domain uncertainty should be published before resources are allocated from point estimates alone.

The analysis also suggests a statistical agenda. The CSO could release survey weights, cell standard errors or replicate weights, machine-readable metadata, and versioned tables. Annual reports and web tables should share revision identifiers. An explicit bridge table for classification and survey-mode changes would greatly improve research use. Publishing hours, earnings, formality, and gross worker flows by industry would allow future work to distinguish more jobs from more labour input and better jobs. These improvements would produce policy value beyond this paper.

10. Conclusion

Saint Lucia's output and labour-market recovery was substantial but not uniform. National employment increased faster than real GVA over the long pre-pandemic and recovery endpoints. From 2019 to 2024, employment grew 15.9 percent against GVA growth of 9.2 percent. Yet the strict annual sector model, quarterly validation, and multiple sensitivities do not identify a stable common employment elasticity. The recovery was not one mechanism repeated across industries.

The sector accounting shows why. Among 16 matched sectors, 57 percent of the 14,063-job increase is associated with output scale and 43 percent with changing employment intensity. Construction and trade combined output and job expansion. Information and communication expanded output while reducing employment. Several service and public-facing sectors hired despite weak measured GVA. The implied fall in matched-sector GVA per worker is the arithmetic counterpart of a job-rich recovery, not a verdict on welfare or efficiency.

Nor were gains evenly distributed. Women received slightly more than half of the national employment increase through 2025, but their unemployment rate reached 16.9 percent as female labour-force entry accelerated. Most measured age-group gains accrued to workers aged 55 and older, while youth employment was flat. Service and sales led occupational growth, and sex segregation barely changed. District unemployment remained dispersed.

The broader lesson is methodological. In a small economy, data coverage is not the same as comparability. A publishable growth-to-jobs analysis must make breaks, source coupling, conceptual mismatches, and corrected cells part of the design. Once that is done, Saint Lucia’s evidence supports a careful conclusion: the recovery created many jobs, but output growth alone is an unreliable guide to where, when, and for whom those jobs appeared.

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Appendix A. Full sector crosswalk and exclusions

Table A1. ***Harmonized GDP–employment sector crosswalk***

Analysis sector	Employment label(s)	GVA row/formula	Match/issue	Primary
Agriculture	Agriculture, forestry and fishing	Agriculture, Forestry & Fishing	exact broad	Yes
Manufacturing	Manufacturing	Manufacturing	exact broad; source-coupling sensitivity	Yes
Utilities	Electricity, gas, steam and air conditioning supply + Water supply; sewerage, waste management and remediation activities	Electricity + Water	combined partial match	Yes
Construction	Construction	Construction	exact broad	Yes
Wholesale and retail	Wholesale and retail trade; repair of motor vehicles and motorcycles	Wholesale & Retail Trade	partial label match	Yes
Accommodation and food	Accommodation and food service activities	Accommodation & Food Services	exact broad	Yes
Transport and storage	Transportation and storage	Transport & Storage	exact broad	Yes
Information and communication	Information and communication	Communication & Information Services	exact broad	Yes
Financial and insurance	Financial and insurance activities	Financial Services	exact broad	Yes
Professional and technical	Professional, scientific and technical activities	Professional, Technical & Scientific Services	exact broad; source-coupling sensitivity	Yes
Administrative and support	Administrative and support service activities	Renting of Machinery & Equipment + Travel Agents & Tour Operators + Other Administrative & Support Services	constructed GVA; source-coupling sensitivity	Yes
Public administration	Public administration and defence; compulsory social security	Public Administration, Defence & Compulsory Social Security	exact broad; nonmarket output	Yes
Education	Education	Education	exact broad; mixed market/nonmarket output	Yes
Health and social work	Human health and social work activities	Health & Social Work	exact broad; mixed market/nonmarket output	Yes
Arts and recreation	Arts, entertainment and recreation	Arts, Entertainment & Recreation	exact broad	Yes
Other services	Other service activities	Other Services Activities	exact broad; source-coupling sensitivity	Yes
Excluded	Mining and quarrying	Mining & Quarrying	tiny and intermittently missing	No
Excluded	Real estate activities	Real Estate Activities	GVA includes imputed owner-occupied housing	No
Excluded	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	Domestic Services	partial conceptual match	No
Excluded	Activities of extraterritorial organizations and bodies	–	no GVA counterpart	No
Excluded	Not Stated	–	unclassified employment	No

Note. Utilities combines electricity and water. Administrative and support GVA sums three national-accounts rows. Excluded rows are shown to make the analytical boundary explicit.

Appendix B. Full sector recovery dashboard

Table A2. ***Full matched-sector recovery dashboard, 2019–2024***

Sector	Δ jobs	Δ employment (%)	Δ real GVA (%)	Conversion elasticity	Scale jobs	Intensity jobs	Recovery path
Administrative and support	3,012	56.4	1.4	–	97	2,915	near-zero GVA change
Wholesale and retail	2,796	20.8	30.2	0.72	3,918	-1,122	output and employment expansion
Construction	2,729	40.6	36.3	1.10	2,479	250	output and employment expansion
Health and social work	1,212	39.0	-12.1	–	-484	1,696	employment growth despite GVA contraction
Transport and storage	1,083	25.9	0.9	–	44	1,039	near-zero GVA change
Education	1,068	27.6	-5.6	–	-256	1,324	employment growth despite GVA contraction
Public administration	859	11.6	-3.6	–	-283	1,142	employment growth despite GVA contraction
Utilities	653	84.6	15.9	4.15	159	494	output and employment expansion
Manufacturing	473	11.1	9.6	1.15	412	61	output and employment expansion
Accommodation and food	447	3.2	15.4	0.22	2,045	-1,598	output and employment expansion
Financial and insurance	349	22.4	-10.5	–	-193	542	employment growth despite GVA contraction
Professional and technical	232	19.0	20.1	0.95	244	-12	output and employment expansion
Arts and recreation	-71	-8.8	-23.9	–	-212	141	output and employment contraction
Other services	-74	-3.0	-12.4	–	-317	243	output and employment contraction
Information and communication	-125	-12.3	37.9	-0.41	316	-441	jobless output expansion
Agriculture	-580	-7.1	1.4	–	107	-687	near-zero GVA change

Note. The conversion elasticity is shown only when log GVA growth exceeds 0.02; a negative value denotes jobless output expansion. Scale and intensity components sum exactly to the reported job change, subject to displayed rounding.

Appendix C. Distributional tables

Table A3a. ***Employment recovery by age band and sex***

Age	Sex	Pre mean	Post mean	Change	Change (%)
15–24	Both	9,249	9,175	-74	-0.8
15–24	Female	4,123	4,525	402	9.8
15–24	Male	5,126	4,650	-475	-9.3
25–54	Both	56,204	61,456	5,252	9.3
25–54	Female	26,957	29,139	2,182	8.1
25–54	Male	29,247	32,316	3,069	10.5
55+	Both	17,238	24,709	7,470	43.3
55+	Female	6,772	9,267	2,495	36.8
55+	Male	10,466	15,441	4,975	47.5

Note. Pre = 2016, 2017, and 2019; post = 2022–2024. Invalid 2018 and the pandemic regime are excluded.

Table A3b. ***Employment recovery by stated occupation and sex***

Occupation	Pre mean	Post mean	Both Δ	Men Δ	Women Δ	Both Δ (%)
Service and sales workers	23,208	27,850	4,642	1,566	3,076	20.0
Professionals	6,996	9,510	2,513	1,062	1,451	35.9
Clerical support workers	4,997	7,232	2,235	770	1,466	44.7
Technicians and associate professionals	6,061	7,995	1,934	880	1,055	31.9
Elementary occupations	12,017	13,936	1,918	1,869	50	16.0
Managers	4,838	6,536	1,698	1,309	388	35.1
Plant and machine operators, and assemblers	4,767	5,507	739	760	-21	15.5
Craft and related trades workers	10,080	10,568	488	119	369	4.8
Skilled agricultural, forestry and fishery workers	6,949	7,183	235	425	-190	3.4

Note. Pre = 2016, 2017, and 2019; post = 2023–2025. Values condition on a stated occupation; the invalid 2018 annual column is excluded.

Table A3c. ***District unemployment: comparable change and 2025 snapshot***

Area	2017–2019 mean	2022–2023 mean	Change (pp)
Anse la Raye/Canaries	16.1	13.4	-2.7
Castries	17.1	17.0	-0.1
Choiseul	25.0	14.4	-10.6
Dennery	21.6	15.1	-6.5
Gros Islet	16.0	10.2	-5.9
Laborie	16.7	13.8	-2.8
Micoud	17.5	13.6	-3.9
Soufriere	16.4	8.0	-8.4
Vieux Fort	33.2	25.2	-8.0

Official 2025 area	Unemployment rate (%)
Castries	13.4
Anse la Raye	13.3
Soufriere	7.9
Choiseul	18.1
Laborie	14.7
Vieux Fort	15.8
Micoud	12.3
Dennery	13.9
Gros Islet	7.3

Note. The two panels are not spliced because 2024–2025 web values conflict with annual-report snapshots and area labels are not perfectly identical.

Appendix D. Model and data-quality details

Table A4. ***Full sector model results***

Specification	β	Robust SE	95% interval	Wild p	N	Sectors
Annual core (strict)	-0.100	0.268	[-0.671, 0.471]	0.696	160	16
Annual market sectors	-0.118	0.288	[-0.746, 0.510]	0.685	130	13
Annual source-independent	0.061	0.359	[-0.730, 0.852]	0.842	120	12
Annual clean market/source-independent	-0.002	0.426	[-0.984, 0.980]	0.991	90	9
Annual weighted by lag employment	0.148	0.216	[-0.312, 0.607]	0.567	160	16
Quarterly YoY, break-aware	-0.055	0.171	[-0.419, 0.309]	0.774	573	16
Quarterly YoY, omit 2023-base caution	-0.052	0.163	[-0.399, 0.296]	0.752	541	16
Quarterly clean market/source-independent	0.130	0.194	[-0.318, 0.577]	0.552	322	9
Sector recovery long difference, 2019–2024	0.172	0.400	[-0.686, 1.030]	–	16	–

Note. Annual and quarterly panels include sector and period fixed effects. Intervals use finite-sample-adjusted sector-cluster covariance with t critical values; Wild p is a restricted Rademacher wild-cluster bootstrap p-value (999 draws). The long difference uses HC3 and has no cluster count.

Table A5. ***Data-quality exception log***

Series	Period	Issue	Action	Type
annual industry employment	2008–2009	classification/column incompatibility	exclude sector cells; retain canonical aggregate employment	critical
annual industry employment	2010	Population and Housing Census rather than LFS	descriptive benchmark only; omit transition into 2011	critical
LFS employment series	2020–2021	stand-alone/telephone pandemic measurement regime	exclude growth transitions into, within, and out of regime	critical
annual age by sex	2018	labour-force counts placed in employed table	set year missing	critical
annual occupation by sex	2018	2018Q4 values presented as annual	set year missing	critical
annual occupation	2021 and 2025	published totals condition on stated occupations	use stated-occupation denominator and disclose excluded cases	material
annual industry by sex	2025	male total and Not Stated copied/misaligned from 2025Q4	use official annual report values 52,831 and 1,249	critical
annual industry by sex	2024	extraterritorial male+female exceeds both-sex value	exclude category from sex-sector analysis	material
annual industry by sex	2023	male real-estate cell malformed	set cell missing; real estate excluded from primary panel	material
quarterly industry employment	2025Q2	mining value 6,756 and manufacturing unavailable indicate row misalignment	do not reclassify; affected manufacturing observation remains missing	critical
quarterly LFS	2023Q2–Q3	Census-fieldwork data-quality caution	flag and omit observations using these bases in strict sensitivity	material
district unemployment web table	2024–2025	values conflict with official annual-report snapshots	use web series only through 2023 for change; use report for 2025 snapshot	critical
real-estate crosswalk	all years	GVA includes imputed owner-occupied dwelling services	exclude from primary matched-sector panel	conceptual
constant-price GVA	selected activities	rebasing report documents employment-based volume indicators	run sensitivity excluding source-coupled sectors	conceptual

Note. Industry components differ materially from canonical employment in two disclosed years (component minus canonical total): 2020: -3,546; 2024: 278. No residual is forced into a substantive sector.

Appendix E. Figure notes and alternative text

Figure 1 alternative text: Two indexed lines show national real GDP and employment from 2008 to 2024, with both equal to 100 in 2019. Both fall during the shaded non-comparable 2020–2021 LFS regime and exceed 2019 by 2022. Employment reaches roughly 116 in 2024, above GDP at roughly 111. An annotation reports that 2025H1 employment rose 1.1 percent while GDP and GVA fell.

Figure 2 alternative text: A labelled sector scatterplot places 2019–2024 real GVA change on the horizontal axis and employment change on the vertical axis. Construction and trade are in the positive-output/positive-employment quadrant. Information is in the positive-output/negative-employment quadrant. Health, education, finance, and public administration add employment despite lower measured GVA.

Figure 3 alternative text: Horizontal paired bars show exact output-scale and employment-intensity contributions to job changes in 16 sectors. Scale dominates in trade and construction. Intensity dominates in administrative support, health, education, and public administration. Accommodation has a positive scale component partly offset by a negative intensity component.

Figure 4 alternative text: Paired horizontal bars compare changes in men's and women's mean sector employment between 2017–2019 and 2023–2025. Women gain most in trade and administrative support; men gain most in construction and trade. Women lose employment in agriculture.

Figure 5 alternative text: Three panels show employment changes by age, stated occupation, and 2025 district unemployment. Employment growth is largest for age 55 and

older; service and sales is the largest occupational gain; district unemployment ranges from 7.3 percent in Gros Islet to 18.1 percent in Choiseul.

Figure 6 alternative text: A forest plot shows nine annual, quarterly, clean-sample, weighted, and long-difference sector estimates. Every 95 percent robust interval crosses zero, indicating that no stable common sector employment elasticity is identified.