Employment precarity and income level in tourism

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Introduction

- Substantial interest in precarious employment, both in hospitality and tourism and more broadly (Kalleberg & Vallas, 2018; Kreshpaj et al., 2020),
- Precarity characterized by lack of security and predictability (Robinson, Martins, Solnet, & Baum, 2019). Expected to increase as the nature of employment evolves.
- Worker perspective: precarity may have widespread negative effects, from income and housing to physical and mental health (Robinson et al., 2019; Valente, Zaragozí, & Russo, 2023)
- Employer perspective: an industry reputation for precarity may hinder recruitment and retention of talented employees (King et al., 2021).
- Multi-year worker-level assessment of precarity in tourism has been limited.

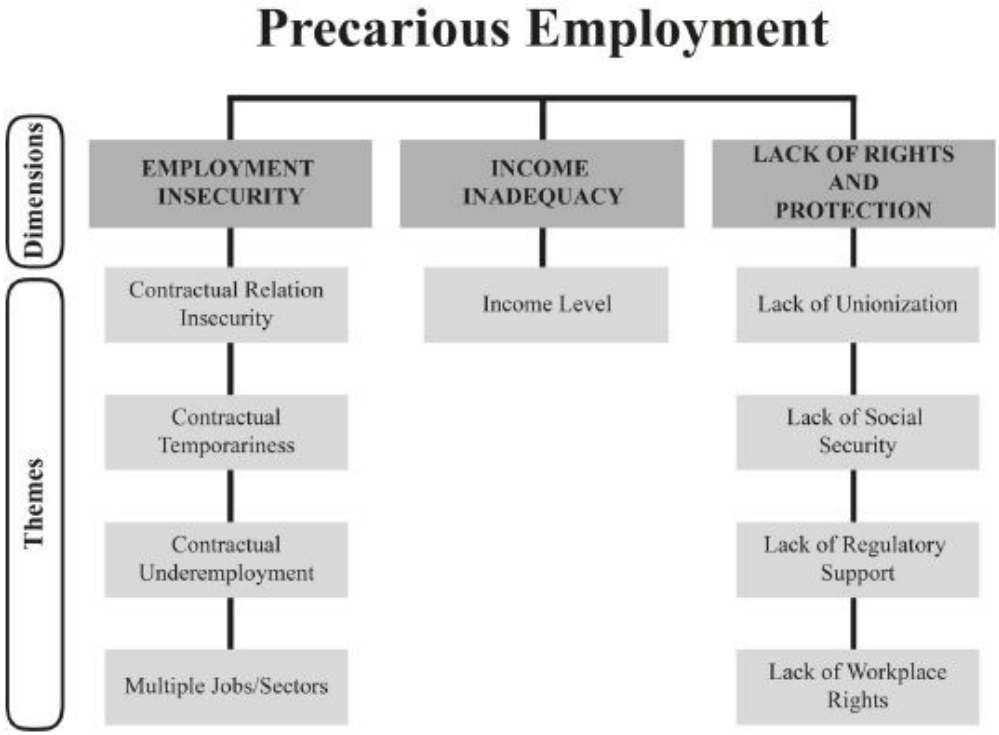
Introduction

- Context – treatment of employer changes.
- Consistent with search and matching theory in labor economics, survey and secondary data analyses suggest that employer changes (turnover, transition) can generate income and/or non-monetary benefits (Brandt, 2016; Cassel, Thulemark, & Duncan, 2018).
- From a precarity perspective, high turnover typically seen as negative, especially in tourism.
  - Some turnover involuntary – and even voluntary turnover involves costs to workers.

Introduction

- Diverse precarity metrics, with income level common as one component (Kreshpaj et al., 2020).
- Challenge – use of income level is an indicator (component) of precarity confounds its evaluation as a predictor.

https://hillnotes.ca/2020/12/01/understanding-precarious-work-in-canada/
and Kreshpaj et al. (2020)



Introduction

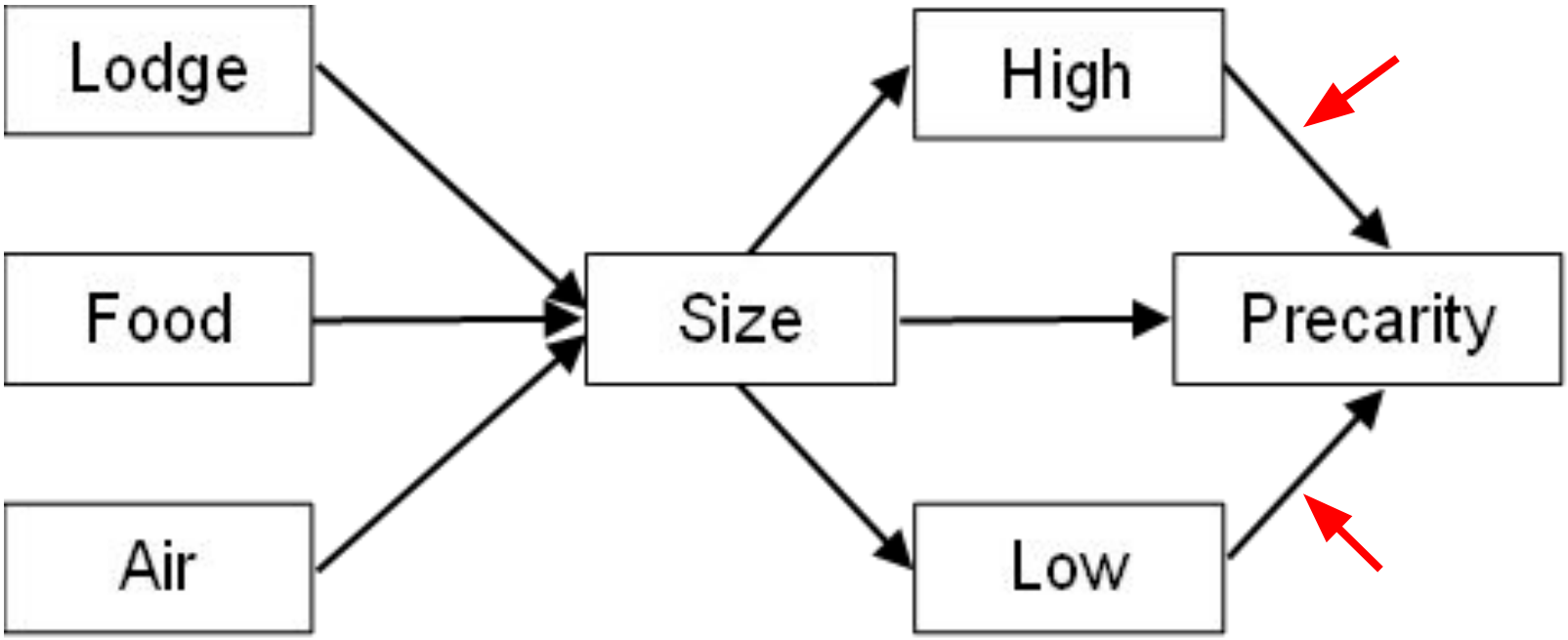
- Present analysis addresses this by classifying workers by initial income levels and using that to predict precarity as indicated by change in annual income, as well as turnover.
- Provides an empirical foundation for understanding how precarity varies across groups of workers.

Methods

- Oregon Employment Dept. UI wage data for workers with:
  - Dominant job in hospitality / tourism at least 16 quarters between 2001 and 2021, including the third quarters of 2001 to 2004; and
  - At least 10 third quarters in any industry or unemployment benefits.
- Provides common "starting point," base attachment to tourism, and involvement in labor force generally. Third quarter = largest number of employees in tourism.
- Data for the population of all 37,274 workers meeting the criteria, so inferential statistics do not apply.
- Income (High, Low, with middle as base) based on mean annual income in first 4 years, within each of 4 categories:
  - Lodging.
  - Food and drink.
  - Air transport.
  - Miscellaneous (base).

Methods

- Path model estimated in Mplus v. 8.10.



Methods

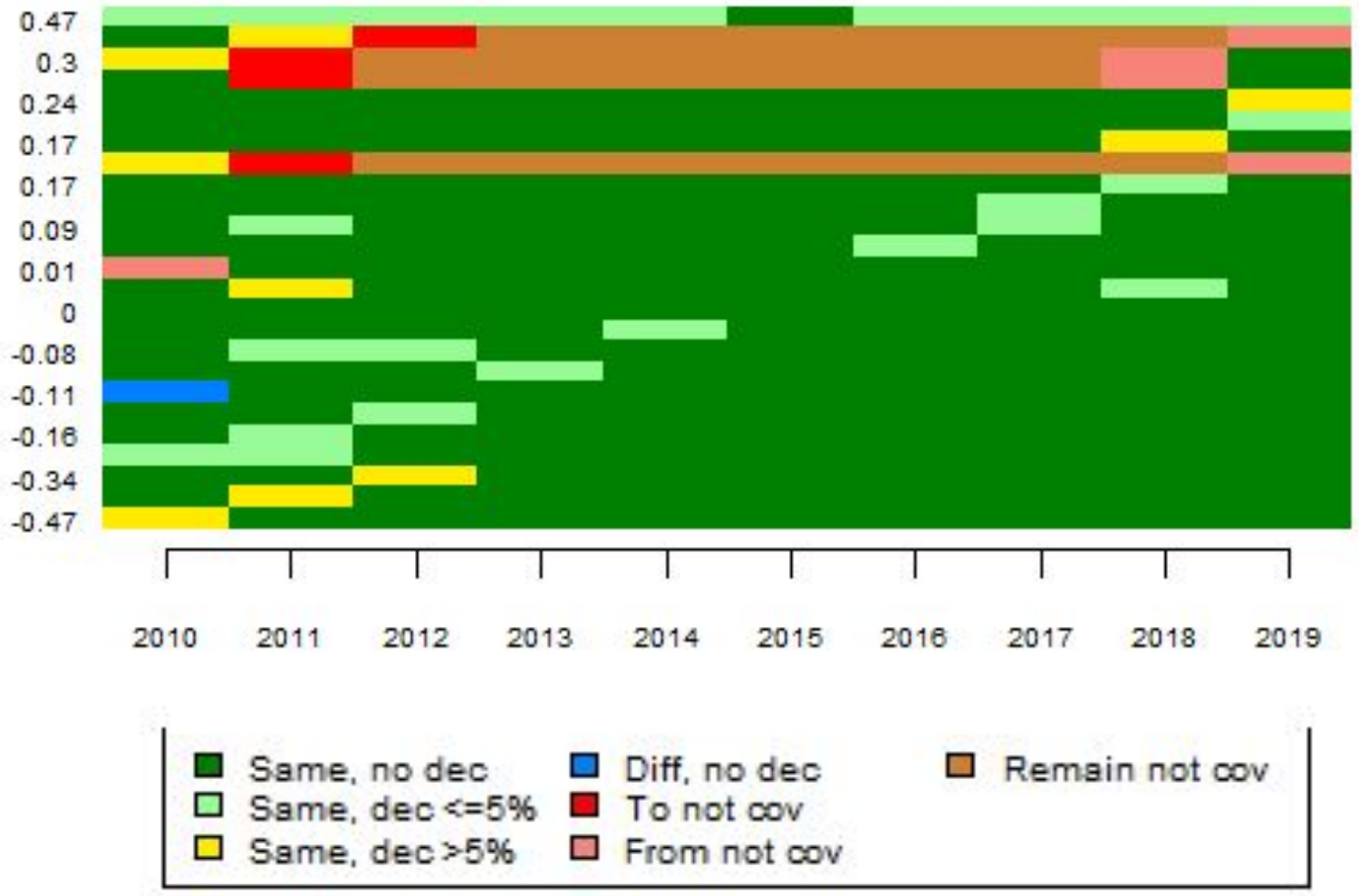
- Precarity metrics reflect each worker's single pattern of 20 year-to-year statuses, 2001 to 2021 with respect to:
  - Change in employer.
  - Percentage change in inflation-adjusted annual income (sum of income from worker's dominant employer during each of four quarters).
  - Transitions from and to employment.
- Researcher-defined, most desirable to most undesirable:
  - 1 for Same (dominant, Q3) employer in the destination year as in the origin (preceding) year, with no decline in annual income.
  - 1 (tied with above) for Different employer, no income decline.
  - 3 for From unemployment or other not covered in origin year to employed.
  - 4 for Same employer, income decline up to 10%.
  - 5 for Different employer, income decline up to 10%.
  - 6 for Same employer, income decline greater than 10%.
  - 7 for Different employer, income decline greater than 10%.
  - 8 for Remain in unemployment or other not covered.
  - 9 for From employment to unemployment or other not covered.

Methods

- Insecurity metric calculated in Traminer R package (Ritschard, 2021).
  - Pattern instability (change across types of statuses);
  - Undesirability of statuses; and
  - Tendency toward undesirability.
- Insecurity metric treats status change as negative, but some changes are positive or neutral. Therefore, also use:
- Points metric, focused solely on undesirability of statuses. Calculated as the mean across the 20 year-to-year status points (previous slide).

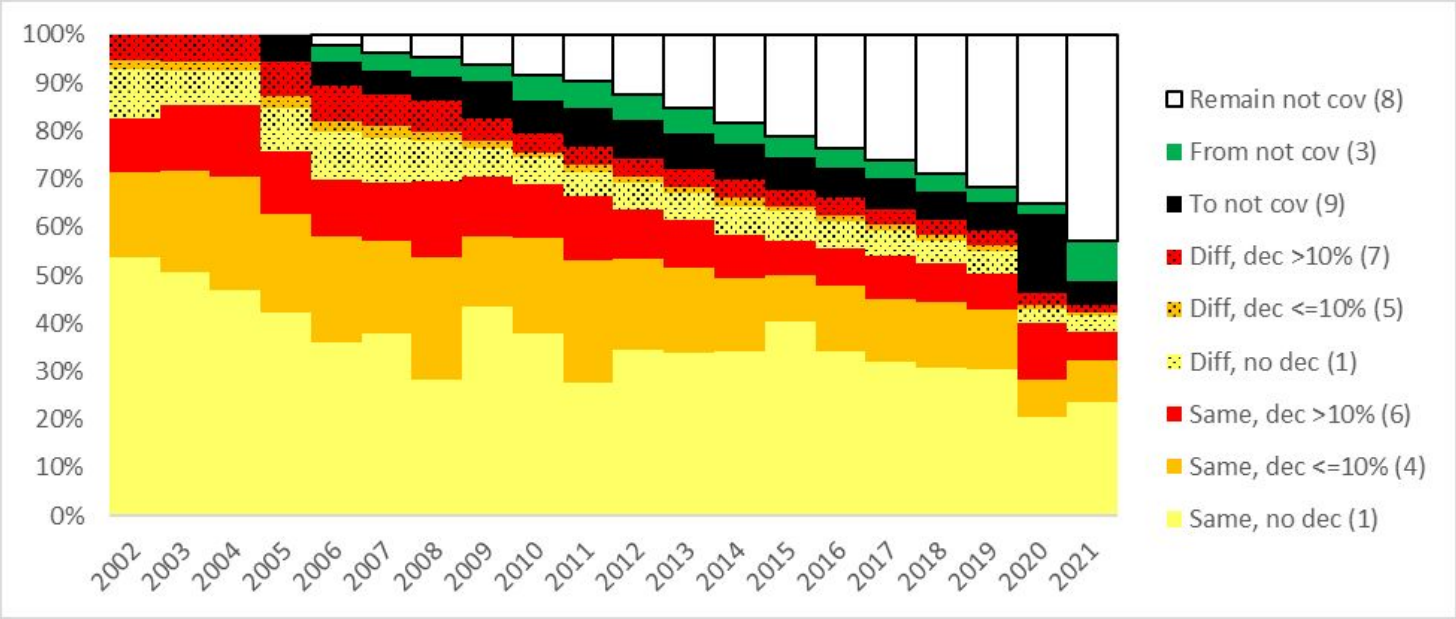
Methods

- Sequence plot illustration of Traminer insecurity score.
  - Higher numbers = more insecurity / precarity.



Results

- State distribution plot (chronogram), employment status by destination year, percent of workers.
- By construction, no "to not covered" (black) status until 2005.
- Great Recession effect: decrease in "same employer, no decrease" (solid yellow) status in 2008 and increase in "to not covered" (black) status in 2009.
- Pandemic effect: increase in "to not covered" (black) in 2020, as well as in "same employer, decrease greater than 10%" (solid red), with an increase in "from not covered" (green) in 2021.



Results

- Workers who start the period with higher income in their industry category tend to have lower precarity. Workers starting with lower income tend to have higher precarity.
- Fit statistics at bottom indicate the points model fit better than the insecurity model.

	Coefficients (insecurity)	Coefficients (points)
Insecurity / Points regressed on		
Intercept	5.640	4.010
High	-.082	-.106
Low	.113	.133
Size	-.173	-.221
High regressed on		
Threshold	.444	.444
Size	.042	.042
Low regressed on		
Threshold	.423	.423
Size	-.025	-.025
Size regressed on		
Intercept	.343	.343
Lodging	.199	.198
Food and drink	.147	.155
Air transport	.838	.831
RMSEA (90% CI)	.021 (.018-.023)	.005 (.000-.008)
CFI	.922	.996
Chi square / df	166.7 / 10	18.4 / 10

Results

- Workers at larger firms were likely to have lower precarity scores, through both the direct effect (negative coefficient on Size in the first component) and the indirect effects (coefficients on Size in the High and Low components).

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Discussion

- In this analysis, income level is a predictor of precarity rather than an indicator of precarity.
- Put simply, higher income workers were more likely to thrive than were lower income workers.
- Lower income workers more likely to experience some combination of:
  - Income declines;
  - Separation from their employer; and/or
  - Departure from covered employment.
- To reduce precarity, workers may target larger firms, where that is consistent with other career objectives.

Discussion

- As measured here, precarity can be reduced by avoiding income declines and turnover, with the latter potentially also dependent on income declines.
- Income gains (and avoidance of declines) may occur due to regulatory or market factors, such as:
  - Increased minimum wage in some US states.
  - Reduced supply of tourism workers post-pandemic.
- Ultimately constrained by firm profitability in an industry with often tight margins.
  - Firms alternatively may focus on other factors affecting worker well-being and job satisfaction.

Questions, Comments

References / Reading

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Additional Details

- Illustrative sequence plot based on separate analysis of most common 10-year sequences among workers in covered employment or unemployment in both 2010 to 2019 (103,693 observations).
- Potential monetary and non-monetary transition costs in changing employers (Ehrenberg, Smith, & Hallock, 2023), so statuses involving different employers counted as more precarious in the case of income declines – relative to equivalent level of decline at same employer.
- However, mean income gains from changing to a new employer for these workers were substantially greater than income gains from remaining with the same employer. Therefore, the two statuses involving no income decline were treated as equal across same and different employers.
- All employers in the first four years were in hospitality and tourism, by construction. Thereafter, hospitality and tourism workers potentially transitioned to employers in other sectors.
- Unemployment refers to a status of receiving unemployment insurance benefits. That is one status within the "not covered" category, with "other not covered" referring to all other statuses, such as retired, self-employed, or working outside Oregon.

Additional Details

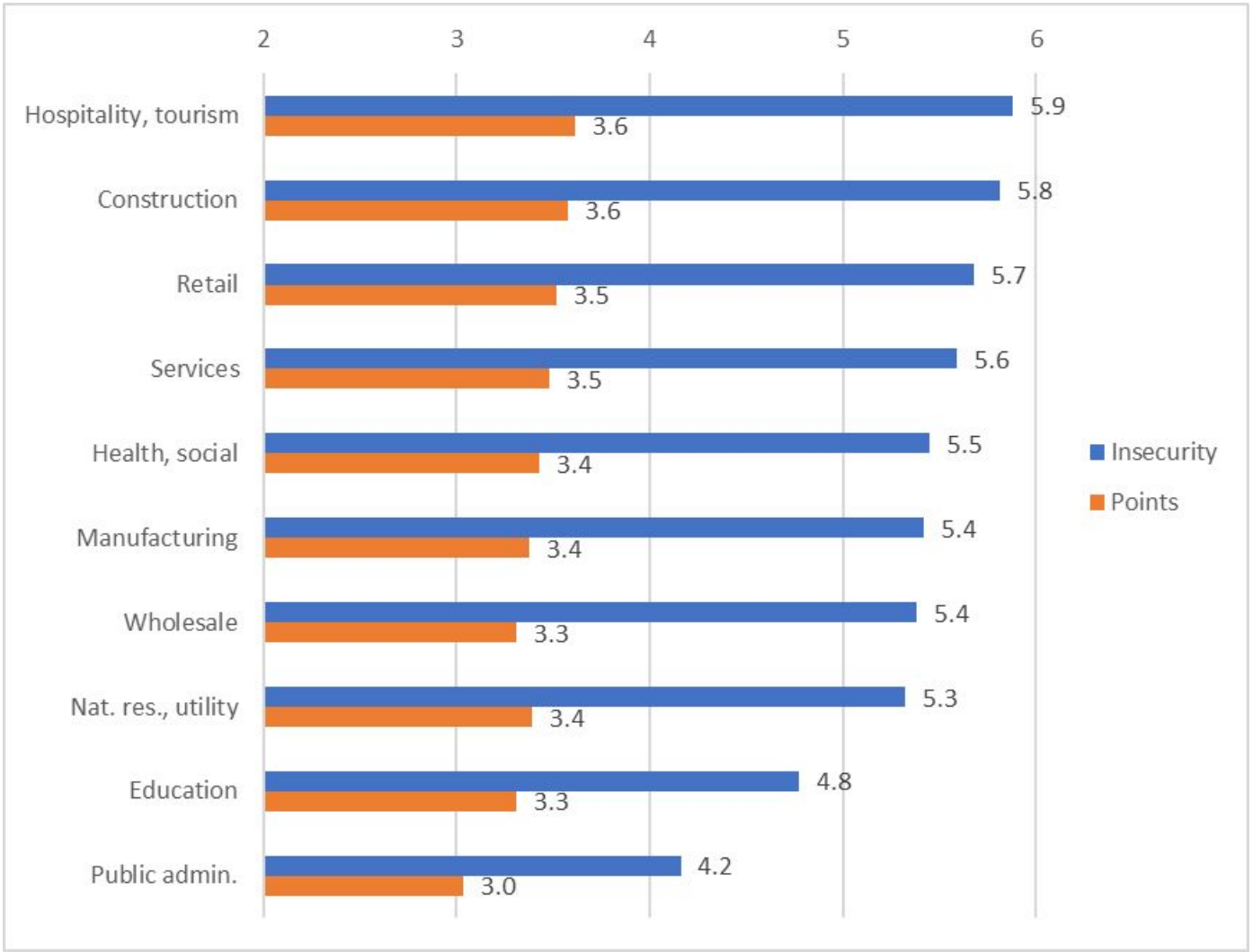
- Size variable was mean (across 2001 to 2021) of the number of employees at each worker's dominant third quarter firm, as measured by OED records for the number of employees each firm paid. The original Size variable had a mean (across workers) of 732.
- For this analysis, the original Size variable was divided by 1,000 and winsorized at 2. Thus, a value of 50 in the original variable was represented by a value of .05 in the Size variable for this analysis. Due to winsorizing, values greater than 2,000 in the original variable were represented by a value of 2.
- Worker allocation to industry categories was based on the most frequent NAICS category of the worker's dominant firm across third quarters in 2001 to 2021. Thus, if Worker X was employed by a lodging firm for 15 years and by a food and drink firm for four years during the study period, Worker X was classified as a lodging worker and would have the value of 1 for Lodge and 0 for Food and for Air.

Additional Details

Category	NAICS codes
Lodging	721110 through 721310
Food and drink	722110 through 722515
Air transport	481111 and 481211
Miscellaneous	487110 through 487990, 532111, 561510, 561520, 561591, 561599, 713110 through 713930, and 713990

	Mean	Median	Standard deviation	Percent = 1
Insecurity	5.80	5.89	1.71	
Points	3.94	3.75	1.21	
High				33.3
Low				33.3
Size	.533	.241	.635	
Lodging				18.5
Food and drink				66.6
Air transport				5.4

Additional Details



Additional Details

- Precarity across industries, random sample of workers, 2001 to 2021:
  - In any industry during each of the third quarters of 2001 to 2004;
  - In any industry during at least 16 quarters in total; and
  - In any industry or with unemployment benefits during at least 10 third quarters.
- Allocated to industry categories based on category in which they were employed in the third quarter of at least 11 of the 21 years in the period; workers not meeting the 11 year minimum were excluded. The random sample data reflect 105,354 workers who met the above criteria.
- Analysis of variance results indicated that differences across categories were statistically significant ($p < .001$) for both the insecurity and the points metrics. Absolute differences across industries generally were modest. However, consistent with Valente et al. (2023), hospitality and tourism workers exhibited the greatest precarity (in both metrics) while public administration workers exhibited the lowest precarity.
- LSD post hoc measure and $\alpha = 0.05$ indicate mean for hospitality and tourism statistically different from that of all other categories for the insecurity metric and different from that of all other categories except construction for the points metric.