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DEVELOPMENT OF THE QUALITY OF WORK AND EMPLOYMENT IN LUXEMBOURG: TO WHAT EXTENT DO EMPLOYEE GROUPS DIFFER?

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This newsletter shows how the various dimensions of quality of work and employment as well as well-being have developed in Luxembourg over the past eleven years. The dimensions of participation, feedback, autonomy and cooperation showed a steady downward trend between 2014 and 2021, but have since stabilised at a low level. The risk of accidents and physical stress decreased until 2021 and have remained constant since then, with the risk of accidents recently increasing again. Mental demands and time pressure have remained relatively stable over the years, while emotional demands increased between 2017 and 2020 and have remained at a high level since then. Satisfaction with income levels fell between 2019 and 2020, but has remained largely constant since then. Training opportunities and job security have largely stagnated since 2020, while work-life conflicts increased steadily between 2014 and 2022, but

have declined slightly since 2023. While the differences between men and women in the overall QoW index are minimal, there are major discrepancies if we analyze the individual dimensions in detail. Male employees consistently report higher scores for participation and autonomy, while female employees experience greater emotional demands and more frequent work-life conflicts. Managers and academics consistently have higher QoW Index scores regardless of year, while employees in direct services and sales, skilled trades in industry and crafts, as well as plant and machine operators, and assemblers and unskilled labourers, almost consistently have belowaverage scores. Employees in the areas of finance, information/communication and public administration consistently report above-average quality of work over the years, while employees in healthcare, trade and manufacturing consistently report lower values.

Dimensions of the quality of work and employment

Quality of work encompasses all (psychosocial) working conditions that can influence the well-being of employees, such as the content of work or the working environment. Psychosocial working conditions such as autonomy, social support or participation are strongly associated with various wellbeing dimensions and subjective performance (e.g. Nielsen et al., 2017; Sonnentag et al., 2023). Employment quality, on the other hand, describes all aspects of a job that relate to the employment relationship – i.e. the working conditions (Steffgen et al., 2020). This includes satisfaction with income, training and promotion opportunities, job security, difficulty in changing jobs and work-life conflicts. Quality of work and quality of employment are associated with a variety of different dimensions of well-being and health (Steffgen et al., 2020). This newsletter analyses how the various dimensions of the quality of work and employment, as well as the aggregated QoW index of employees in Luxembourg, have developed over time. In addition, the development of the QoW index is analysed according to a number of demographic (gender, age, presence of children) and occupational (occupational groups, economic sector) characteristics.

Data from the Quality of Work Survey (QoW; the 2014-2024 Sischka survey and the 2025a survey) – an annual representative survey of employees in Luxembourg – is used for this purpose (for details, see the Method box). The results of the QoW surveys carried out between 2020 and 2022 should be viewed against the backdrop of the COVID-19 pandemic, which has significantly changed the world of work (Beine et al., 2020; Béland et al., 2020; Eurofound, 2020; Sischka & Steffgen, 2021; Sischka et al., 2022).

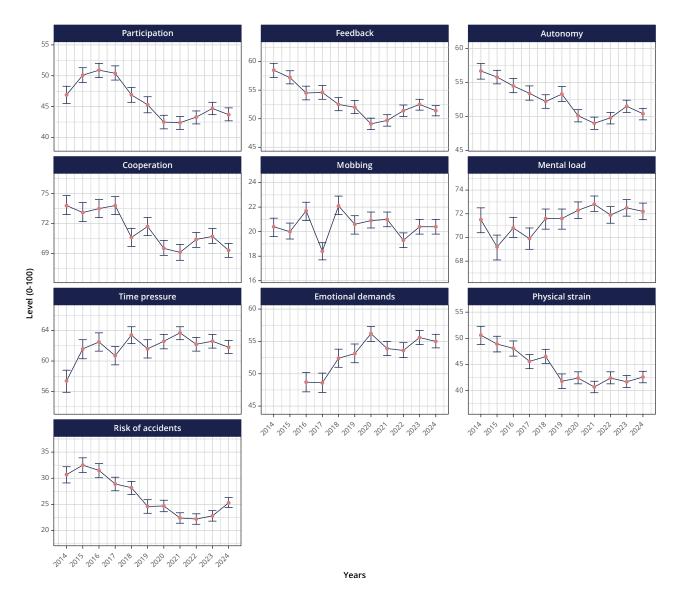
2. Development of the quality of work dimensions

Figure 1 shows changes in quality of work data from 2014 to 2024. The dimensions of participation, feedback, autonomy and cooperation show an almost continuous downward trend between 2014 (or 2016) and 2021. Since then, the values have remained comparatively stable. Mobbing remained relatively constant between 2014 and 2024 – apart from major fluctuations between 2016 and 2018. The dimensions of accident risk and physical strain also fell between 2014 and 2021 and have since shown a relatively constant level,

with accident risk rising again between 2023 and 2024. Mental demands also remained relatively stable between 2014 and 2024 – with somewhat greater fluctuations between 2014 and 2018. Time pressure increased significantly in 2014 in particular, but remained largely constant after 2015 – with minor fluctuations. Emotional demands increased between 2017 and 2020 and have remained at a higher level since then.

In this newsletter, only the masculine generic is used for the purpose of clarifying the text. It refers to any gender identity and thus includes both female and male persons, transgender persons as well as persons who do not feel they belong to either gender or persons who feel they belong to both genders.





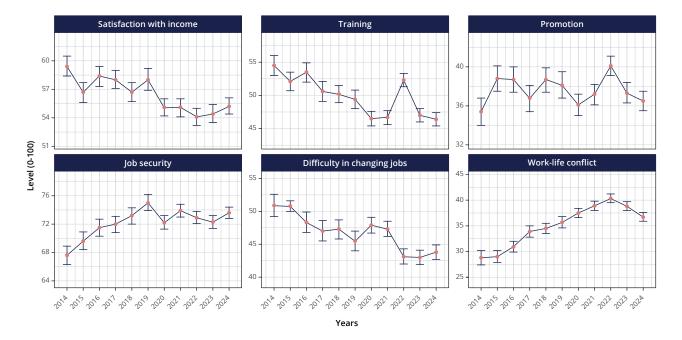
Note: Data from QoW 2014-2024; mean value of the scales ranging from 0 to 100 with 95% confidence interval.

3. Changes in employment quality dimensions

Figure 2 documents changes in the quality of employment experienced by employees. Income satisfaction decreased between 2019 and 2020 in particular, but has remained almost unchanged since 2020. Perceived training opportunities show a downward trend between 2014 and 2020, while they remained comparatively stable between 2021 and 2024 – with the exception of 2022. With regard to promotion opportunities, there are certain fluctuations over time, with

the highest value in 2022. However, there are only minor differences between the first (2014) and the last year of observation (2024). Job security increased continuously between 2014 and 2019, but stagnated after 2020 and has remained stable since then. Work-life conflicts rose almost continuously between 2014 and 2022, but have fallen again slightly since 2023.





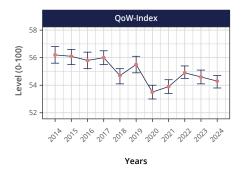
Note: Data from QoW 2014-2024; mean value of the scales ranging from 0 to 100 with 95% confidence interval.

4. Trends in the QoW index

Figure 3 shows trends in the aggregated QoW index for employees in Luxembourg. Only minor changes in the QoW index can be observed between 2014 and 2019. However,

the index fell significantly between 2019 and 2020. In 2022, the index rose again slightly, but again showed a slight downward trend in the following years.

Trends in the QoW index



Note: Data from QoW 2014-2024; mean value of the scale ranging from 0 to 100 with 95% confidence interval.

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5. Changes in well-being dimensions

satisfaction remained relatively constant between 2014 and 2017, but showed a significant decline between 2017 and 2018. Although job satisfaction rose again slightly in 2019, nificantly lower level since then compared to 2014. Work recorded a further significant decline until 2021. Since then, work motivation has remained at this low level. The level of

Figure 4: Development of the well-being dimensions

Job satisfaction Motivation at work Burnout 40 66 60 35 63 56 30 60 52 25 57 Level (0-100) WHO-5-Well-Being-Index Health problems 65 35 60 30 55 25 2023 2024 2020 202 2022 201 201 201 201 201 201 201 201 201 201 201

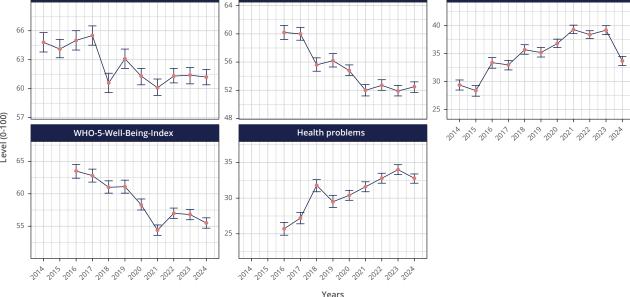
Note: Data from QoW 2014-2024; mean value of the scales ranging from 0 to 100 with 95% confidence interval.

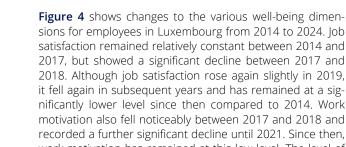
Figure 5 shows how the QoW index evolved when broken down by gender. Over the years, male employees have almost consistently exhibited a slightly higher QoW index than female employees. While the QoW Index differs only slightly between male and female employees over the years, there are greater differences in the individual dimensions: Over the years, male

employees show consistently higher values for participation, autonomy and accident risk. Female employees, on the other hand, consistently report higher emotional demands, although the gender-specific difference in this dimension has decreased significantly between 2016 and 2024.

¹ This sharp decline is particularly remarkable as the other well-being dimensions hardly changed between 2023 and 2024. This finding should therefore be interpreted with caution. One possible explanation for this could be the so-called item order effect (e.g. Bandalos, 2021): In the last survey (2024), the items of the burnout scale were presented using a newly added scale - the Occupational Depression Inventory (ODI; Bianchi & Schonfeld, 2020). The previous processing of the ODI items could have influenced the perception or evaluation of burnout-related items. As the two scales are similar in terms of content, it is possible that the responses on the burnout scale were influenced by the items on professional depression that were presented just before.





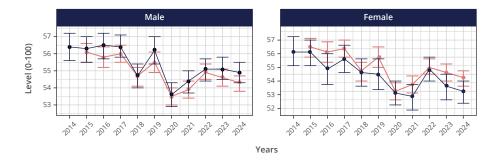


burnout increased significantly overall between 2014 and 2021 and remained relatively constant between 2021 and 2023. However, a significant decline was observed between 2023 and 2024.1 General well-being levels fell almost continuously between 2016 and 2021, but showed a slight improvement after 2022, followed by a further decline between 2023 and 2024. Health problems increased significantly overall between 2016 and 2024, with a noticeable upward fluctuation in 2018.

Male employees perceive their promotion opportunities to be higher over the years and perceive their difficulties in changing jobs to be lower compared to female employees.

In contrast, female employees, consistently report a higher level of work-life conflict compared to their male colleagues.





Note: Data from QoW 2014-2024; mean value of the scale ranging from 0 to 100 with 95% confidence interval. The grey values represent the mean values of the entire sample.

Figure 6 shows trends in the QoW index, broken down by age group. Over time, employees aged between 45 and 54 usually show below-average values on the QoW index, while employees aged between 16 and 34 tend to show above-average values. A look at the individual dimensions shows that employees aged between 16 and 34 consistently illus-

trate the highest values for feedback and cooperation, but also for physical stress and risk of accidents. At the same time, the youngest age group consistently shows the lowest values for autonomy. Employees aged between 45 and 54 consistently show below-average scores for training and promotion opportunities in particular.

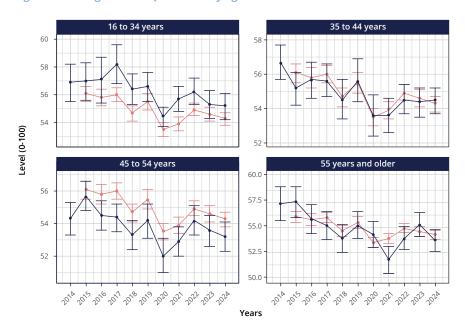


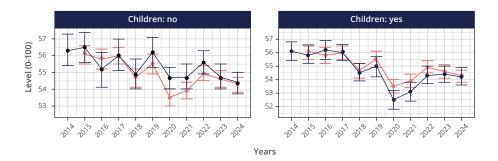
Figure 6 : Changes in the QoW index by age

Note: Data from QoW 2014-2024; mean value of the scale ranging from 0 to 100 with 95% confidence interval. The grey values represent the mean values of the entire sample.

Figure 7 shows changes to the QoW index, differentiated according to whether children are present in the house-hold. Employees with children recorded a somewhat sharper decline between 2019 and 2020, but this has since evolved into a slight upward trend. A detailed look at the individual dimensions shows that employees with children tend to be

more satisfied with their income than employees without children. They also consistently report a higher level of worklife conflict over time. On the other hand, employees without children consistently report higher training and promotion opportunities and tend to report a higher level of job security.

Figure 7 : Changes in the QoW index according to the presence of children



Note: Data from QoW 2014-2024; mean value of the scale ranging from 0 to 100 with 95% confidence interval. The grey values represent the mean values of the entire sample.

7. Changes in the QoW index by occupational characteristics

Figure 8 shows changes in the QoW index as a function of employees' professional category. Whatever the year, the QoW index is always higher than average among managers, executives and directors, as well as among professionals, while it is rather similar to that of the total sample among technicians and associate professionals and clerical support workers. On the other hand, service and sales workers, craft

and related trades workers, as well as plant and machine operators and assemblers, show a QoW index almost constantly below average over the years. With regard to the latter category and employees in elementary occupations, the QoW index has even fallen sharply over time. Finally, an analysis of these four groups also reveals that their QoW index has moved well away from the average since 2020.

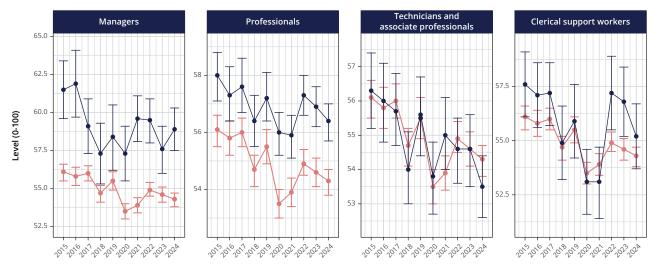


Figure 8: Development of the QoW index by occupational group

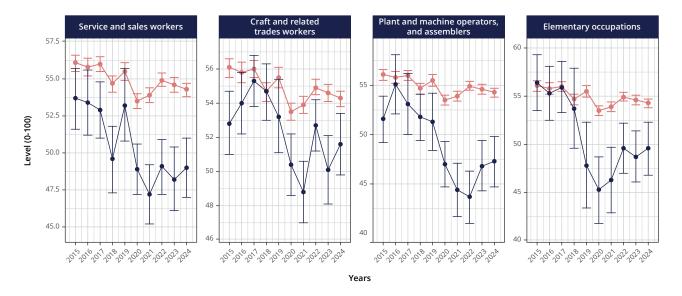


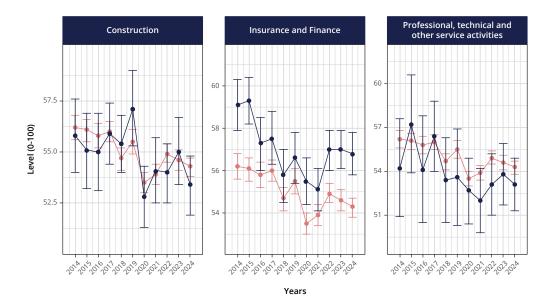
Figure 8: Development of the QoW index by occupational group (continued)

Note: Data from QoW 2014-2024; mean value of the scale ranging from 0 to 100 with 95% confidence interval. The grey values represent the mean values of the entire sample.

Figure 9 illustrates trends in the QoW index broken down by economic sector. Employees who work in the construction industry and in the area of professional, technical and other service activities show a similar development of the QoW index as within the entire sample. Employees working in the financial and insurance services, IT and communication and

public administration, defence and education consistently have above-average QoW index values. Employees working in health and social work, trade, transport, hotels and restaurants, and manufacturing and production of goods consistently have below-average QoW Index scores.

Figure 9: Changes in the QoW index by economic sector



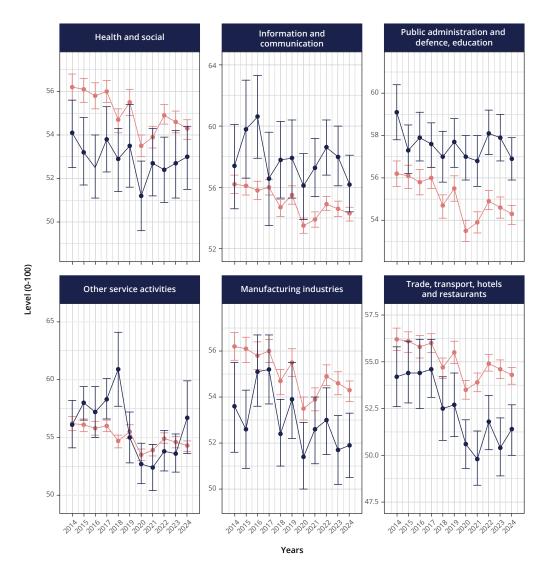


Figure 9: Changes in the QoW index by economic sector (continued)

Note: Data from QoW 2014-2024; mean value of the scale ranging from 0 to 100 with 95% confidence interval. The grey values represent the mean values of the entire sample.

8. Conclusions

Changes to the aggregated Quality of Work (QoW) index provides important insights into the general work situation of Luxembourg employees. Nevertheless, an analysis of individual dimensions like autonomy, participation and emotional demands, as well as of specific subgroups such as occupational groups and economic sectors, reveals the existence of considerable differences.

The results show that changes to the quality of work vary widely for different groups of employees. While managers

and professionals have consistently high QoW Index values, the values for employees in service and sale and manual occupations, as well as for plant operators and unskilled labour, remain consistently below average. It is also important to note that the various occupational groups sometimes have very different labour and employment quality profiles. For example, employees in service and sale occupations and manual occupations, as well as plant operators and unskilled labourers, are particularly affected by physical strain. However, workers in service and sale occupations also have high levels of emotional demands and have been affected by a particularly sharp decline in autonomy over the years (Sis-chka, 2025b).

Due to the significant differences in working conditions and the quality of work between different occupational groups, economic sectors and between employees with different demographic characteristics, measures to improve the quality of work should specifically address this heterogeneity. This requires sector – or group-specific strategies to empower employees in occupational categories with particularly low values in these areas.

9. References

- Bandalos, D. L. (2021). Item meaning and order as causes of correlated residuals in confirmatory factor analysis. *Structural Equation Modeling*, *28(6)*, 903-913. https://doi.org/10.1080/10705511.2021.1916395
- Beine, M., Bertoli, S., Chen, S., D'Ambrosio, C., Docquier, F., Dupuy., A. ..., & Vergnat, V. (2020). Economic effects of Covid-19 in Luxembourg. First RECOVid working note with preliminary estimates. Working note. Research Luxembourg. https://www.liser.lu/ documents/RECOVID/RECOVid_working-note_full-1.pdf
- Béland, L.-P., Brodeur, A.,& Wright, T. (2020). The Short-Term Economic Consequences of COVID-19: Exposure to Disease, Remote Work and Government Response. IZA Discussion Papers No. 13159. Institute of Labor Economics (IZA), Bonn. https://www.econstor. eu/bitstream/10419/216471/1/dp13159.pdf
- Bianchi, R., & Schonfeld, I. S. (2020). The Occupational Depression Inventory: A new tool for clinicians and epidemiologists. *Journal of Psychosomatic Research, 138*, Article 110249. https://doi.org/10.1016/j.jpsychores.2020.110249
- Eurofound (eds.) (2020). Living, working and COVID-19: *First findings, April 2020*. European Foundation for the Improvement of Living and Working Conditions. https://www.eurofound.europa.eu/topic/covid-19
- Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Känsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress, 31(2),* 101-120. http://dx.doi.org /10.1080/02678373.2017.1304463
- Sischka, P. (2025a). Quality of Work. Research report 2024. Research Report. University of Luxembourg.
- Sischka, P. (2025b). "Quality of Work Index" Zur Arbeitsqualität unterschiedlicher Arbeitnehmergruppen in Luxemburg. Zwischenbericht zur Erhebung 2024. Research Report. University of Luxembourg.
- Sischka, P. E., Schmidt, A. F., & Steffgen, G. (2024). COVID-19 countermeasures at the workplace, psychological well-being, and mental health a nationally representative latent class analysis of Luxembourgish employees. *Current Psychology, 43(14),* 13202-13218. https://doi.org/10.1007/s12144-022-03377-4
- Sischka, P. E., & Steffgen, G. (2021). Extended telecommuting due to COVID-19 and the impact on working life. In G. Mein, J. Pause (eds.), *Self and Society in the Corona Crisis. Perspectives from the Humanities and Social Sciences.* Melusina Press. https://www.melusinapress.lu/read/extended-telecommuting-due-to-covid-19-and-the-impact-on-working-life/section/f8b55206-2e74-4e9e-b4fa-3a6c22fa14fa
- Sonnentag, S., Tay, L., & Nesher Shoshan, H. (2023). A review on health and well-being at work: More than stressors and strains. *Personnel Psychology*, *76*(2), 473-510. https://doi.org/10.1111/peps.12572
- Steffgen, G., Sischka, P. E., & Fernandez de Henestrosa, M. (2020). The Quality of Work Index and the Quality of Employment Index: A Multidimensional Approach of Job Quality and Its Links to Well-Being at Work. *International Journal of Environmental Research and Public Health*, 17(21), 7771. https://doi.org/10.3390/ijerph17217771

Method

For the *"Quality of work Index"* study on the work situation and quality of work of employees in Luxembourg, around 1,500-2,900 interviews (CATI; CAWI) have been conducted annually since 2013 by Infas (since 2014) on behalf of the Chambre des salariés Luxembourg and the University of Luxembourg (Table 1). The findings presented in this report relate to the surveys conducted since 2014 (Sischka, 2025a).

Table 1: Methodological background of the QoW survey						
Aim of the survey	Analysis of the labour situation and quality of work of employees in Luxembourg					
Conception, realisation, analysis	University of Luxembourg: Department of Behavioural and Cognitive Sciences, Chambre des salariés, Luxembourg since 2014 Infas Institute, previously TNS-ILRES					
Type of survey	Telephone survey (CATI) or online survey (CAWI; since 2018) in Luxembourgish, German, French, Portu- guese or English					
Sample size	2014: 1,532; 2015: 1,526; 2016: 1,506; 2017: 1,522; 2018: 1,689; 2019: 1,495; 2020: 2,364; 2021: 2,594; 2022: 2,696; 2023: 2,732; 2024: 2,939					
Work quality scales	Scale	Number of items	Cronbach's Alpha	Scale	Number of items	Cronbach's Alpha
	Participation	2	0.72-0.80	Mental load	4	0.74-0.77
	Feedback	2	0.70-0.81	Time pressure	2	0.70-0.79
	Autonomy	4	0.74-0.79	Emotional demands	2	0.79-0.87
	Co-operation	4	0.79-0.84	Physical stress	2	0.68-0.76
	Mobbing	5	0.72-0.78	Risk of accident	2	0.75-0.85
Employment quality scales	Scale	Number of items	Cronbach's Alpha	Scale	Number of items	Cronbach's Alpha
	Satisfaction with income	2	0.87-0.89	Job security	2	0.72-0.78
	Training	2	0.74-0.87	Difficulty in changing jobs	2	0.81-0.84
	Promotion	2	0.84-0.90	Work-life conflict	3	0.75-0.82
QoW Index The QoW index is formed by the unweighted average of all scales of the quality of work and employment. The scales are also calculated using the unweighted mean value of the corresponding individual indicators which assume values between 1 (e.g. "never") and 5 (e.g. "almost always"). The scale values are then standardised to values between 0 and 100 [((original scale value - 1) / 4) * 100].						
Well-being scales	Scale	Number of items	Cronbach's Alpha	Scale	Number of items	Cronbach's Alpha
	Job satisfaction	3	0.79-0.85	General Well-Being (WHO-5)	5	0.83-0.90
	Work motivation	3	0.65-0.76	Health problems	7	0.72-0.79
	Burnout	6	0.80-0.86			

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