# Program Sustainability & Knowledge Loss

Research Brief

Prepared at the Request of New York County Leaders
Compiled by: Brendan Adamczyk and Elizabeth Day
Cornell University and University of Oregon

## BACKGROUND

Across the U.S., leaders at all levels of government and all types of organizations face challenges of sustaining programs and minimizing knowledge loss when key staff leave or transition into new roles.

## What is Knowledge Loss?

The unintentional evaporation of organizational knowledge accumulated via individual and collective learning, usually when an employee with significant knowledge leaves the organization.<sup>1</sup>

Loss of skills and habits developed to lead programs effectively.

Loss of subject matter expertise.

Loss of knowledge about business relationships and social networks.

## **Program Sustainability**

When viewing the long-term health of an organization, researchers generally target three main aspects of the definition of sustainability:<sup>2</sup>

- **Continued program activities:** Whether programs are ongoing.
- **Continued measured benefits or outcomes for new clients:** Whether programs continue to produce positive impacts and, where relevant, continue expanding.
- **Maintained community capacity:** The degree to which programs support the communities they serve.

All three of these components rely heavily on the role of a **champion**, a senior staff member with significant knowledge of a program that serves as a representative of that program both internally within an organization and externally to clients, peers, and the public.

## **PROMISING APPROACHES**

Although the field of knowledge loss mitigation is relatively new, there are several potential options for addressing this multifaceted issue.

## **Increasing Structural Resiliency**

The most effective way for an organization to mitigate the negative impacts of knowledge loss is by **increasing the resiliency of their internal processes via knowledge management (KM) strategies.** This reduces the amount of knowledge loss when an employee with significant expertise leaves the organization by retaining their knowledge in a decentralized, yet hierarchical, structure.<sup>3</sup> Key aspects of this approach include:

Managerial Action	Description	Impact on Knowledge Loss
Codify KM Strategies	Formalize process of storing knowledge in centralized databases in both organizational vision and culture.	Ensuring the organization has a procedure for recording individual employee knowledge reduces the impact if/when that employee leaves the organization.
Identify Sources of Organizational Knowledge	Locate and support employees with large amounts of critical knowledge; these individuals should be prioritized for salary increases.	Finding and nurturing individual employees with high levels of vital organizational knowledge reduces the likelihood that they will leave the organization.
Disseminate Knowledge	Develop protocols and strategies (and, as needed, employ software) to distribute critical knowledge throughout the organization.	Decentralizing knowledge without diluting it is a difficult task, but the more individuals that have crucial organizational knowledge, the smaller the impact of any one individual leaving the organization.

This approach has been found to not only reduce knowledge loss, but also **increase organizational efficiency and achievement of programmatic performance metrics**, especially in the public sector but also, to a degree, in all types of organizations.<sup>4</sup>

## **Decentralizing Knowledge via Crowdsourcing**

One approach that requires more research is decentralizing knowledge via crowdsourcing. Under this framework, organizations shift resources away from sole employees with high levels of knowledge, instead **engaging the public about their programs to diffuse expertise** and reduce the impact of knowledge loss. One study on Mexico City's public transportation system found that this approach led to the development of more efficient routes and a robust transportation network.<sup>5</sup>

## The Role of Older Workers

For many organizations, senior members of the workforce have become significant sources of knowledge; losing them to other organizations or to retirement can lead to significant knowledge loss. Researchers highlights three key aspects regarding how managers should interact with and view their older employees:<sup>1</sup>

- 1. **Identify Senior Experts:** Supervisors should regularly review their employees and consider the types of critical knowledge that may be held by those who have been with the organization for an extended period.
- 2. **Locate and Transfer Knowledge Prior to Retirement:** Managers often underestimate the volume of knowledge held by older workers and the resources required to retain this knowledge, so starting the transferal process as early as possible is key.
- 3. **Recognize that Age and Expertise are Distinct:** Tenure is not a guarantee of competence; each employee should be viewed as an individual and only those who possess critical knowledge should be prioritized.

# **BROADER CONSIDERATIONS**

Beyond knowledge loss specifically, there is a broader literature on employee retention. These studies suggest the following for reducing turnover:

#### **GOAL-SETTING:**

Setting clear targets for both **organizational goals** (addressing ambiguity in program measures, project timelines, and performance evaluation) and **individual goals** (improving perceptions of job performance specificity).<sup>6</sup>

#### **LABOR SUPPLY & DEMAND:**

Viewing turnover not as a conflict with goal achievement but as a function of decisions at two levels: **employee work** (compensation and working conditions) and **organizational staffing** (meeting budgets and performance appraisal).<sup>7</sup>

More detailed information on addressing caseworker turnover and retention can be found in our detailed brief at: <a href="http://2gen.bctr.cornell.edu/library/caseworkerretention">http://2gen.bctr.cornell.edu/library/caseworkerretention</a>.

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## **METHODS**

Findings presented in this brief come from a literature review of academic peer-reviewed studies, as well as a review of research and findings from non-partisan think tanks, foundations, and organizations. Given the rapid nature of this search, other relevant studies may exist. In addition, please note that we did not use formal statistical methods for summarizing results and exploring reasons for differences in findings across studies.

## REFERENCES

- <sup>1</sup> Joe, C., Yoong, P. & Patel, K. (2013), Knowledge loss when older experts leave knowledge-intensive organisations. *Journal of Knowledge Management, (17)*6: 913-927. <a href="https://doi.org/10.1108/JKM-04-2013-0137">https://doi.org/10.1108/JKM-04-2013-0137</a>.
- <sup>2</sup> Scheirer, M. A. (2005). Is Sustainability Possible? A Review and Commentary on Empirical Studies of Program Sustainability. *American Journal of Evaluation*, *26*(3): 320–347. <a href="https://doi.org/10.1177/1098214005278752">https://doi.org/10.1177/1098214005278752</a>.
- <sup>3</sup> Daghfous, A., Belkhodja, O. & Angell, L.C. (2013). Understanding and managing knowledge loss. *Journal of Knowledge Management, (17*)5: 639-660. https://doi.org/10.1108/JKM-12-2012-0394.
- <sup>4</sup> Phaladi, M. & Ngulube, P. (2022). Mitigating risks of tacit knowledge loss in state-owned enterprises in South Africa through knowledge management practices. *South African Journal of Knowledge Management*, (24)1: 1-9. <a href="https://journals.co.za/doi/full/10.4102/sajim.v24i1.1462">https://journals.co.za/doi/full/10.4102/sajim.v24i1.1462</a>.
- <sup>5</sup> Cairo, O., Sendra Salcedo, J., & Gutierrez-Garcia, J.O. (2015). Crowdsourcing information for knowledge-based design of routes for unscheduled public transport trips. *Journal of Knowledge Management, (19)*3: 626-640. <a href="https://doi.org/10.1108/JKM-02-2015-0053">https://doi.org/10.1108/JKM-02-2015-0053</a>.
- <sup>6</sup> Jung, C.S. (2014). Why Are Goals Important in the Public Sector? Exploring the Benefits of Goal Clarity for Reducing Turnover Intention. *Journal of Public Administration Research and Theory, (24)*1: 209–234. <a href="https://doi.org/10.1093/jopart/mus058">https://doi.org/10.1093/jopart/mus058</a>.
- <sup>7</sup> Grissom, J.A., Viano, S.L. & Selin, J.L. (2016), Understanding Employee Turnover in the Public Sector: Insights from Research on Teacher Mobility. *Public Administration Review, (76)*2: 241-251. <a href="https://doi.org/10.1111/puar.12435">https://doi.org/10.1111/puar.12435</a>.