



# The Scarring Effect of the 2008 Economic Crisis: Growth and Growth Decline in Austria's Nonprofit Social Services Sector

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**Abstract** Since the 2008 economic crisis, social service providers worldwide have reported funding cuts, while the need for some social services has been increasing. This paper examines the combined and longer-term effects of such divergent developments on the nonprofit social services sector. The empirical analysis uses Austrian administrative data on six subfields of the sector covering the years 2003–2017. We investigate significant changes in the trends of four growth indicators applying interrupted time series analysis. We find that the 2008 economic crisis is associated with persistently lower growth rates in Austria's nonprofit social services sector. The magnitude of this dampening effect differs across subsectors. Additionally, our findings suggest an increase in market concentration. Hence, the study discloses a long-term scarring effect of the economic crisis on Austria's social services sector, raising doubts on the sector's future resilience.

**Keywords** Social services · Economic crisis · Austria · Interrupted time series analysis · Austerity · Third sector

## Introduction

The global economic crisis certainly had an impact on the third sector (e.g. Chaves-Avila and Savall-Morera 2019; Dietz et al. 2014; Ferreira 2015; Horvath et al. 2018; Never and de Leon 2014; Pape et al. 2019; Tzifakis et al. 2017). The financial crisis followed by a sovereign debt crisis and fiscal austerity measures aggravated the economic conditions for nonprofit organizations, nonprofit social services in particular. Social service providers in many countries throughout the developed world are highly dependent on public funding (e.g. Salamon et al. 2017). Consequently, these service providers have had to cope with 'doing more with less' (e.g. Cunningham 2016; Cunningham et al. 2016) or substitute government funds by user payments (Ferreira 2015). The crisis accelerated the already ongoing transformation of the third sector ensuing from increased public cost-cutting efforts, a gradual retreat of the state from funding societal tasks and the further development of market mechanisms (service contracting and tendering procedures) (Pape et al. 2016).

At the same time and in a longer-term perspective, nonprofit social services have been a fast growing sector, with increasing workforce and economic importance (Salamon and Sokolowski 2018; Sirovátka and Greve 2014). Demand for social services has increased with the development of new social risks stemming from structural changes in labour markets, in the demography and in families (e.g. Evers et al. 2011; Martinelli 2017). Additionally, the social investment paradigm (Ahn and Kim 2015) changed the perception of the industry from being part of the problem to being key to sustainable economic development (Kersbergen et al. 2014). In course of this social investment turn in social policy, welfare states increasingly started to prioritize investments in social

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services (Leoni 2016). Finally, some welfare states have shifted towards recomunitarization, which describes increased involvement of the nonprofit sector in social service provision (Leibetseder et al. 2017). In the course of this process, the nonprofit sector's potential in finding new responses and social innovations has been acknowledged (Chaves-Avila and Savall-Morera 2019). Since the 1990s, calls for a more active involvement of citizens in welfare service production have additionally strengthened the role of nonprofits in service provision, because they have been found to hold a leading role in promoting citizen participation, thus fostering co-production of personal social services (e.g. Chaves-Avila and Savall-Morera 2019; Pestoff 2012). All of this facilitates sustained growth of the nonprofit social services sector.

Against this backdrop of major economic challenges as well as opportunities, the question arises whether the 2008 global economic crisis has left any lasting scars beyond immediate minor scratches to the development of the nonprofit social services sector. Accordingly, this paper uses time series data on the Austrian nonprofit social services sector for the years 2003 until 2017 in order to detect changes in the level of payroll expenditure and employment shortly after the crisis and in their medium and longer-term growth rates. The focus, thereby, is on the development of the nonprofit social services sector rather than on the organizational level, highlighting the importance of this sector as a whole. We examine the development of the sector by an interrupted time series analysis (ITSA) to test any changes in growth trends for significance. It is important to note that the empirical approach chosen does not allow us to unravel the underlying factors of the significant changes we identify. However, we will tap previous research on key explanatory factors for the sector's size and growth to reflect on the potential transmission channels of the external shock in the discussion section.

Research on the impact of the global economic crisis on nonprofit organizations has progressed considerably (see 'The Impact of the Economic Crisis on European Social Services Providers' section). We contribute to this body of the literature in three ways. First, research on the impact of the economic crisis on nonprofit organizations, so far, has mainly—and not surprisingly—highlighted short-term consequences for the sector (e.g. Chaves-Avila and Savall-Morera 2019; Clifford 2017; Dietz et al. 2014; Hanfstaengl 2010; Horvath et al. 2018; Morreale 2011; Never and de Leon 2014; Pape et al. 2016; Tzifakis et al. 2017; Wilding 2010). However, the economic crisis has potentially scarring effects in terms of reducing the sector's longer-term growth and resilience. A decade has passed since the global economic shock, which invites additional analyses of such potential longer-term consequences. The use of ITSA and a

time series until 2017—in contrast to extant studies so far—enables us to disentangle immediate and aftermath effects of the global economic crisis.

Second, opportunities to track the sector's development with reliable and representative quantitative data are limited (Pape et al. 2019). Therefore, most studies in the context of the nonprofit sector and the economic development based their findings on survey data or interviews (e.g. Chaves-Avila and Savall-Morera 2019; Horvath et al. 2018; Molina et al. 2018; Priller et al. 2012). Survey data could suffer from representing perceptions rather than hard facts, and organizations have a strategic interest in exaggerating financial problems in order to attract donations or public funding (Mohan and Wilding 2009). The analysis in this paper relies on the full set of administrative data collected by the Austrian Statistics Office from all nonprofit social service providers for the period of interest. Hence, sampling bias is not an issue. The longitudinal data set incorporates information on expenditure and income as reported to tax authorities making recollection problems and response bias highly unlikely. Also, it is important to use longitudinal data in order to investigate longer-term sector growth.

Third, existing research examining the impact of the economic crisis on (social service) nonprofits has, so far, mainly concentrated on either liberal welfare states (e.g. Clifford 2017; Dietz et al. 2014; Horvath et al. 2018) or Southern European countries (e.g. Chaves-Avila and Savall-Morera 2019; Ferreira 2015; Tzifakis et al. 2017). Countries that classify as corporatist welfare states have less often been investigated. Our paper presents empirical evidence for the Austrian nonprofit social services sector strengthening the evidence based on this specific type of welfare state.

In the next section of the paper, we discuss the extant literature on the impact of the economic crisis on nonprofit social service providers. The third section then lays out the specific Austrian situation as regards social service provision and the economic crisis. In the fourth section, we expand on the data and give a descriptive overview of the development of Austria's nonprofit social services sector. The fifth section presents the results of the interrupted time series analysis. The paper concludes in the sixth section with a discussion of these findings.

## The Impact of the Economic Crisis on European Social Services Providers

The late-2000s crisis was not a regular cyclical downturn. It started as a financial crisis to progress into a singular global economic crisis. Public social spending has increased in the early stages of the crisis, responding to

growing unemployment and related social problems (e.g. OECD 2010). In these first stages, several countries introduced Keynesian-style measures in the form of compensatory programmes (Vis et al. 2011). The rising public cost of bank bailouts and fiscal stimulus packages, however, triggered a sovereign debt crisis and fiscal austerity (e.g. Kersbergen et al. 2014). In many European countries, the crisis prompted a period of subdued growth. Consequently, public social spending at later stages of the crisis was in shorter supply and fiercely contested in many European welfare states (e.g. MacLeavy 2011).

A number of studies for Europe investigated the consequences of the crisis for social expenditure and social policies on the national level (e.g. Kersbergen et al. 2014; Leoni 2016; Ronchi 2018; Vis et al. 2011). From the concerned literature, we can mainly draw three conclusions. First, rather than using the ‘window of opportunity for radical reforms’ (Kersbergen et al. 2014, p. 885), states predominantly continued to pursue their pre-existing policy trajectories (Vis et al. 2011).<sup>1</sup> No major policy innovation was introduced, and instead, welfare states reinforced cost containment measures and retrenchment (Armingeon 2013; Kersbergen et al. 2014; Ronchi 2018). Second, some reorientation of social policy objectives towards the social investment paradigm could be observed in European welfare states (Leoni 2016). This paradigm underlines ‘the productive potential of social policy’ (Leoni 2016, p. 843), by privileging social spending categories that ‘provide a long-term return in terms of social and economic benefit’. Efforts to prevent or reduce labour market-related ‘new social risks’ including activation and labour market integration measures as well as education and human capital formation correspond with this philosophy. The social investment turn showed especially in the area of childcare services and policies for the reconciliation of family and work (Fink 2015). However, when comparing the magnitudes of both retrenchment and investment measures, the former prevailed (Ronchi 2018). Third, it is important to stress that European welfare states were hit differently by the economic crisis and exhibit great differences in their social policies. Rather than converging, the crisis magnified imbalances across EU countries (Leoni 2016).

<sup>1</sup> Armingeon (2013) holds that major policy innovations modernize welfare states in ways that enable them to address new social risks. He presents four approaches for identifying major policy innovations empirically. A major policy innovation shows, first, in an increased number of enacted reforms as compared to the pre-crisis level. Second, it may come as policy response to specific OECD reform suggestions (with the bigger share of enacted changes moving beyond pure liberalization to also address new social risks). Third, major policy innovations trigger a large increase in goal achievements scores from country experts’ ratings. Fourth major reforms can be supposed to be included in reports on major policy reforms delivered by country experts.

Consequently, it is essential to analyse the developments and consequences of the crisis for nonprofit social services in different welfare states.

Both austerity and social investment measures of welfare states are likely to have translated into the economic development of the social services sector. There are reasons to believe that the crisis added further to the already increasing need for some social services. Counselling services for depression, anxiety and other mental health problems, child protection services, food banks and services to the homeless all were in higher demand following the global economic crisis (European Social Network 2014). Due to the initial response of many welfare states—the introduction of Keynesian-style compensatory measures—we expect the social services sector to have initially expanded during the crisis. Indeed, in most EU 27 countries, total employment in the health and social services sectors was higher in 2010 compared to 2008 (Eurostat 2019a).

At the same time, it is interesting to note that financially, the recession posed challenges for the nonprofit sector, as many organizations worldwide had to deal with funding cuts, especially during the years 2008–2010 (Hanfstaengl 2010). For English and Welsh charities, declines in real income over the 2009–2014 period were found (Clifford 2017), again with a substantial variation depending on activity field, organization size and location. Hospices and nursing homes as well as preschools were among the organizations actually experiencing income growth. Other social services showed an initial small growth in the years 2009 and 2010, but have experienced subsequent years of real income decline.

Longer-term consequences of the economic crisis and resultant policy change on social service organizations have so far mainly been investigated by describing more qualitative changes for the sector and its relation towards the state. Studies concerned with the nonprofit sector in Southern European countries have especially looked at effects on the sector in an environment where the states completely abandoned their role as welfare providers. These studies describe some detachment of the third sector from the government, in the sense that the third sector acted more autonomously from traditional political authority, and highlight a strengthened role both in welfare provision and the coordination of local welfare services (Ferreira 2015; Tzifakis et al. 2017). In the course of this, nonprofit organizations also spotlighted positive aspects such as increased efficiency, volunteering rates or donations (e.g. Tzifakis et al. 2017). Also, the role of social entrepreneurship as a consequence of state retrenchment increased (Molina et al. 2018). Pape et al. (2016) analyse the impact of the economic recession on European third-sector organizations in five countries (France, Germany,

the Netherlands, Portugal and Spain) using document analysis, in-depth interviews and an online survey. The crisis accelerated policy developments such as increased cost-cutting efforts, a gradual retreat of the state from funding societal tasks and the introduction of market mechanisms (service contracting and tendering procedures). With regard to Germany, they note that ‘the financial crisis favoured a ... deeper legal anchoring of existing austerity practices’ and that ‘austerity measures gained broader political legitimacy’ (Pape et al. 2016, p. 552f). Similarly, another comparative study examines the impact of policy changes on the development of the third sector in eight European countries using results from interviews, an online survey and case studies (Pape et al. 2019). Overall, the authors find the nonprofit sector to be resilient and adaptable, even though funding decreased. In particular, nonprofit organizations in countries with traditionally strong ties between the state and the nonprofit sector were better equipped to adapt and survive. For Austria, this was also shown in qualitative studies that all mention relatively stable financial conditions. However, organizations also report covert financial cuts, in the sense that they have to accommodate increased clients’ needs with stable funding that can be met only by increased volunteer work and work intensification (Astleithner et al. 2017; Simsa 2015; Simsa and More-Hollerweger 2013).

The previously mentioned stream of the literature focused on the sector’s development in a time of crisis. Another stream of the literature more generally explains nonprofit sector size and growth accounting for a large set of possible determinants and theories. This research goes well back before the 2008 crisis. Most prominently, it features demand-side, supply-side and community-focused explanations of nonprofit sector size and growth (e.g. Grønbjerg and Paarlberg 2001; Lecy and Slyke 2013; Liu 2017). According to, first, demand-side theories, nonprofit organizations emerge in response to unmet needs in areas that are neither in line with government preferences/priorities nor attractive for for-profit investors. Government failure theory (Weisbrod 1977), as an example, posits that government programs do not effectively respond to heterogeneous demands in the population because policymakers tend to target the preferences of the median voter. Failure theories have been challenged, for example by proponents of interdependence or social origins theory (e.g. Salamon and Anheier 1998) who suggest that governments willingly delegate service provision to nonprofits. As a result, both sectors come to be mutually dependent, with the size and growth of the nonprofit sector critically hinging on government support. Second, supply-side theories (entrepreneurship theories) emphasize individual motivations to found nonprofit firms. Hence, the size of the sector reflects the level of altruism or the urge to advance a

specific ideology. Third, the community-focused approaches point to differences in political and economic settings (and their dynamics) in explaining variations in the size and growth of the nonprofit sector across countries, regions or local communities. In this perspective, economic structures, as expressed in income or wealth per capita, and access to other types of financial, human or political resources co-determine the sector’s development (Grønbjerg and Paarlberg 2001). While we do not directly add to this eminent body of work, we can think of how a major economic crisis might affect some of the key drivers of the nonprofit sector’s size and growth it identified. There is, for example, solid empirical evidence on government spending being a crucial factor for NPO sector size (Bae and Sohn 2018; Kim and Kim 2015; Lecy and Slyke 2013; Liu 2017; Saxton and Benson 2005), and, as mentioned earlier, the global economic crisis clearly triggered fiscal restraint. We will briefly revisit this and other potential transmission paths of the crisis in our discussion section.

Summing up, we find retrenchment and cost containment to be the most common policy consequences following the economic crisis in many European welfare states, although some increase in social investment measures especially in the area of childcare services could be observed. These policy measures also translated into the development of social service organizations, although the sector in the first years following the crisis was found to be remarkably resilient and adaptable. It is also important to point out that while much emphasis has been put on austerity and retrenchment in the discourse concerned with social service development, social expenditure of many European welfare states has grown in most years over the observed period of time responding, for example, to population ageing. However, the question remains whether this growth has been keeping pace with growth in needs and labour costs.

### **Contextualizing the Austrian Nonprofit Social Services Sector and the Economic Crisis**

Before presenting our own study and its findings in sections four and five, this section provides some background information on the Austrian case. When looking at the role of social services within the welfare state, Austria aligns with the corporatist model. In such a system, nonprofit organizations provide a major share of social services, but mainly rely on public funding in serving clients’ needs. Traditionally, the relation between the providers and the government meets the characteristics of a welfare partnership (Pape et al. 2019; Salamon et al. 2003). Empirically, figures for the year 2013 show that the nonprofit sector accounted for 89% of total value added in the NACE

category ‘social work activities without accommodation’ and almost 45% of total value added in ‘residential care activities’ (Leisch et al. 2016, p. 382). The public sector indeed is an important funder of nonprofit services. Income from government accounted for almost 80% of total income of nonprofit social service organizations in 2013. Donations and sales revenues constitute the two most important income sources of the remaining 20% (Pennerstorfer et al. 2015). These conditions seem to connect well with interdependence theory as briefly recalled in the previous section.

The initial impact of the late-2000s economic crisis was less severe in Austria than in other EU countries. After a growth of real GDP of 1.5% in 2008, the year 2009 marked the peak of the economic crisis, when real GDP shrunk by 3.8%. This was followed by GDP growth rates of 1.8% and 2.9% in 2010 and 2011, respectively, and growth rates between 0 and 1.1% in the years 2012–2015. Since then, growth rates rose slightly to 2.8% in 2018 (Statistik Austria 2019).

The social expenditure growth rates seem to fit well to the patterns described in section two. First, we find an initial phase of welfare benefits expansion in the years 2008 and 2009, often introducing Keynesian-style economic and welfare measures. Austria’s annual real growth rate of social expenditure peaked in the years 2008 (+ 3.3%) and 2009 (+ 4.4%). Specifically, the Austrian government invested in families and childcare as part of an economic stimulus package (Hermann and Flecker 2012, p. 126). This can also be interpreted as part of the ‘social investment turn’ in social expenditure (Leoni 2016, p. 849). In a report to the European Commission, Austria was assessed as showing “a rather strong commitment to the idea of ‘social investment’”, and investment in childcare was one of the most important areas where positive reform measures were implemented (Fink 2015, p. 7). After 2009, mostly cost containment and retrenchment predominated. In 2010, social expenditure growth slowed down to 1.1% and reached a low in 2011 (– 0.9%). Since then, growth rates oscillate between 1.3 and 2.3% (Eurostat 2019b).

Due to a very high dependency on public funding of nonprofit social service providers in Austria and in line with interdependence theory, we expect the social services sector’s development to follow the patterns observed for public social expenditure closely. Simsa et al. (2016), who conducted an online survey of nonprofit organizations, indeed report a reduction of public funding of social service providers, but organizations were affected differently. At the same time, Pape et al.’s comparative study (2019), which also discusses the impact of the financial crisis on the third sector, describes Austria’s number of social nonprofit organizations as stable.

## Data and Descriptive Overview of the Austrian Nonprofit Social Services Sector 2003–2017

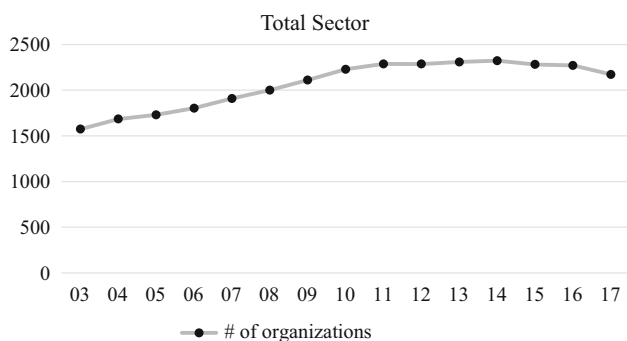
To analyse the development of Austria’s nonprofit social services sector, we obtained administrative data pertaining to the Austrian payslip and sales tax statistics from the Austrian Statistical Office. The data offer information on the field of activity, the number of employment relationships (payslips), payroll expenditure and sales revenue and include all nonprofit social service providers for the years 2003–2017 with at least one paid employee in one of these years.

We define social services in terms of the European classification of economic activity (NACE) which distinguishes six subsectors: ‘residential care activities for the elderly and disabled’, ‘other residential care activities’, ‘social work activities without accommodation for the elderly and disabled’, ‘social work activities without accommodation, not elsewhere classified (n.e.c.)’, ‘child day-care activities’ and ‘pre-primary education’. The sector thus incorporates a wide range of services such as care services for small children, older people and people with disabilities, employment and training services, social assistance services or diverse services for substance abusers or other vulnerable groups.

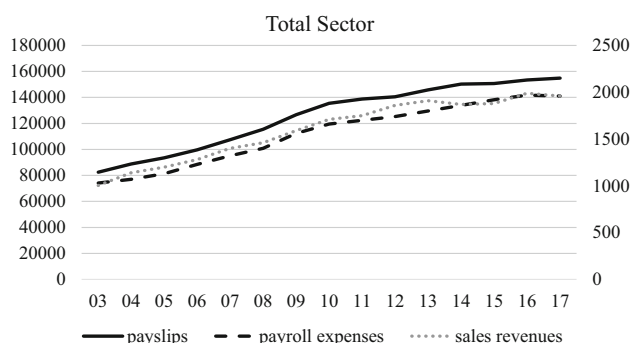
No single indicator exists which adequately and comprehensively captures sector growth (Pennerstorfer and Rutherford 2019). Consequently, it is advisable to use alternative variables to check the robustness of the results. For the study, we rely on four different growth indicators, namely yearly figures for (1) the number of active organizations, (2) aggregate payroll expenses, (3) the number of payslips and (4) aggregate sales income. Although all indicators have close links, each of the indicators captures a different aspect of sector growth.

The data set includes a time series of each of these four indicators for the years 2003 until 2017 covering between 1576 and 2349 active organizations per year. We define an organization as active if it paid wages in the respective year. The data include all organizations that paid wages at least once. However, not all organizations reported payroll expenses or sales revenues in every single year of the study period. We do not report sales revenues for two subsectors (‘child day-care activities’ and ‘pre-primary education’), because these sectors are mainly funded by public subsidies that do not appear in the sales tax statistics. We deflated all monetary values using the Austrian consumer price index with the year 2000 serving as the base year.

Figures 1, 2 and 3 display the different growth indicators for the total sector and each of the six subsectors. Overall, the nonprofit social services sector has grown with respect to each indicator between 2003 and 2017. Payslips,



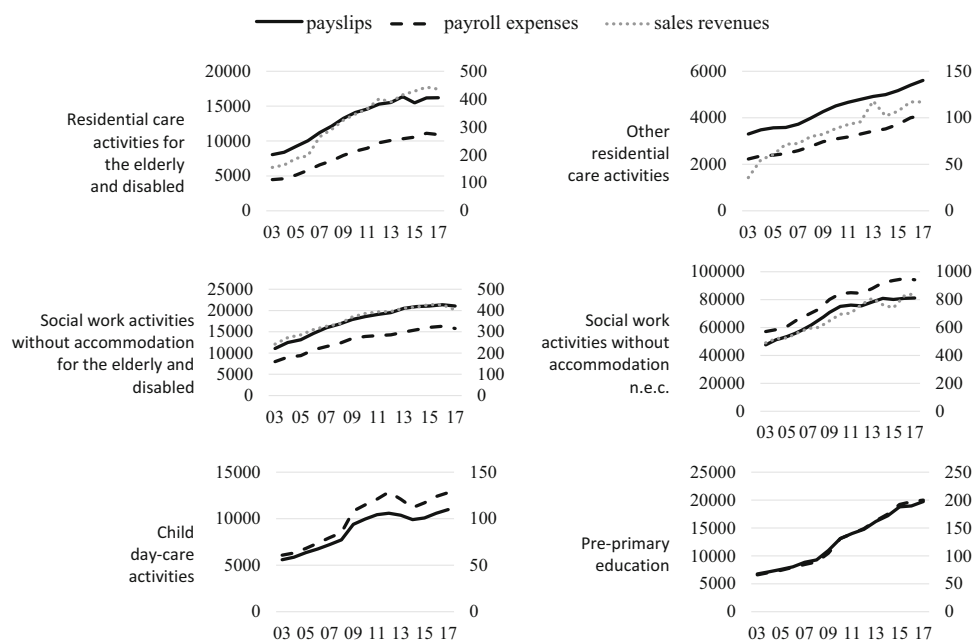
**Fig. 1** Development of # of organizations in AT’s nonprofit social services sector from 2003 to 2017



**Fig. 2** Development of payslips (referring to the left y-axis) and the development of sales revenues and payroll expenses (referring to the right y-axis in million Euro) of AT’s nonprofit social services sector from 2003 to 2017

payroll expenses and sales revenues almost doubled over this period. The subsector ‘social work activities without accommodation n.e.c.’ is the largest. With respect to payroll expenses, the second and third largest subsectors are

**Fig. 3** Development of payslips (referring to the left y-axis) and the development of sales revenues and payroll expenses (referring to the right y-axis in million Euro) for six subsectors of AT’s nonprofit social services sector from 2003 to 2017



‘social work activities without accommodation for the elderly and disabled’ and ‘residential care activities for the elderly and disabled’, respectively. While ‘pre-primary education’ has the second highest number of organizations and number of payslips, it is only the fourth most important category concerning payroll expenses, indicating higher part-time shares, higher fluctuation and/or lower pay levels than in the other subsectors.

Each subsector has grown (Fig. 3). ‘Pre-primary education’ has grown strongest in relative term by reference to payroll expenses (+ 203%) and payslips (+ 192%). ‘Residential care activities for the elderly and disabled’ have more than doubled, too, over the observation period (+ 101% in payslips and + 144% in payroll expenses). The largest subsector ‘social work activities without accommodation n.e.c.’ has grown by 71% in terms of payslips and 65% in terms of payroll expenses from 2003 to 2017.

Growth, however, seems to have flattened over time. The number of active organizations has declined after 2014 (Fig. 1 and Table 2 in the Appendix), to a varying extent, across all subsectors. In the nonprofit social services sector, the number of active organizations has increased from 1574 in 2003 to 2172 in 2017 (+ 38%), peaking in 2014 (Fig. 1). At the same time, the number of payslips continued increasing and reached 154,825 issues in 2017. Moreover, the figures indicate a flattening of growth in payroll expenses, payslips and sales revenues during the second half of the observed period for the total sector. This pattern also appears among services for the elderly and the largest subsector, but not explicitly for services for children and other residential care activities.

In the next section, we apply an interrupted time series in order to test whether the economic crisis had a significant negative effect on previous growth paths.

### Time Series Analysis: Immediate and Aftermath Effects of the Crisis

In this subsection, we analyse the impact of the economic crisis on the development of the nonprofit social services sector using a time series of payroll expenses over the period 2003–2017. We decided to present the results relating to payroll expenses, which turned out to be the most comparable indicator between all subsectors in the descriptive analysis. However, as we think that all indicators have some informative value, we present results for the other indicators in the Appendix. Besides the immediate effect of the crisis, we are particularly interested in the longer-term development of the sector in the aftermath of the crisis. To elicit both potential effects, we apply an interrupted time series analysis (ITSA).

The ITSA method enables us to estimate changes both in the level and in the trend of a time series after an interruptive event. For this and according to the descriptive analysis, we assume that the time series follows a linear trend. We test whether the economic crisis year in 2009 interrupted this trend, which marked the only year in Austria with a negative GDP growth. The crisis may have altered both the level—which we label the *immediate effect*—and the growth trend afterwards—which we label the *aftermath effect* of the crisis. Thus, we tested whether the economic crisis (as defined by negative GDP growth) led to a statistically significant deviation from the previous growth path (i.e. level change in 2009—immediate effect) and altered further development of the sector (i.e. a change of slope after 2009 compared to the previous growth path—aftermath effect). Since we deal with aggregated data for the sector and a relatively short time series ( $t = 15$ ), ITSA is an ideal method to investigate the growth trend of the sector (see Simonton 1977).

The standard ITSA regression model has the form:

$$\log(Y_t) = \beta_0 + \beta_1 T_t + \beta_2 X_t + \beta_3 X_t T_t + \varepsilon_t$$

We estimate a regression line with an ordinary least squares approach. Here,  $Y_t$  are real aggregate payroll expenses of the nonprofit social services sector measured each year from 2003 until 2017. The logarithm of  $Y_t$  is used in order to interpret the coefficients as change in per cent; hence, coefficients can be compared between subsectors.  $T_t$  denotes the time since the start of the time series, and  $X_t$  is a dummy variable which differentiates between the pre-crisis years (0) and post-crisis years (1).  $\beta_0$  represents the intercept,  $\beta_1$  the slope until the year of the interruptive

event,  $\beta_2$  the change in the level of the outcome that occurred in the year of the interruptive event and  $\beta_3$  the difference between pre- and post-crisis slopes of real payroll expense. A significant  $p$  value in  $\beta_2$  indicates a non-random jump right during the crisis year of 2009 (*immediate effect*), and a significant  $p$  value in  $\beta_3$  reveals a significant change of trends between pre- and post-crisis years (*aftermath effect*).

We assume that the random error terms follow a first-order autoregressive (AR1) process. This is the most reasonable disturbance process to assume, even if it cannot always be identified in short time series (Simonton 1977). We suppose the residual has the form

$$\varepsilon_t = \rho \varepsilon_{t-1} + u_t$$

where the autocorrelation parameter  $\rho$  was the correlation coefficient between adjacent error terms, such that  $|\rho| < 1$  and the disturbances  $u_t$  were independent  $N(0, \sigma^2)$  (Linden and Arbor 2015). As an additional robustness check, we vary the year of the ‘interruptive event’; instead of 2009, we chose the years 2008 and 2010 as alternative specifications in our models. We performed the analysis using Stata (version 15.1).

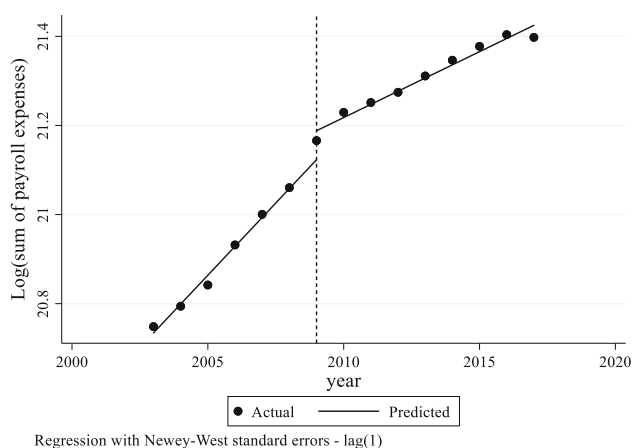
Table 1 displays the results of the interrupted time series analysis, and Figs. 4 and 5 additionally illustrate these results. Before 2009, Austria’s nonprofit social services sector had an average yearly growth rate of 6.5%. Residential care activities and non-residential social work activities for elderly and disabled exhibited the highest average yearly growth rates (10.2% and 8.6%), followed by services related to children (7% and 6.1%). In addition to the descriptive analysis, ITSA allows to see that the sector’s payroll expenses significantly went up (*immediate effect*) in the crisis year 2009. The largest subsector ‘social work activities without accommodation n.e.c.’ shows a significant positive effect. Similarly, the subsectors ‘child day-care activities’ and ‘pre-primary education’ have a significant positive coefficient for the immediate effect. Together these three subsectors mainly drive the total sector’s *immediate effect*.

Turning to the *aftermath effect* after 2009, we find a statistically significant negative effect for the total sector, which means that growth after the economic crisis slowed down compared to the years before 2009 (Fig. 4). After the economic crisis, the yearly growth rate of the Austrian nonprofit social services sector averaged 3% as compared to 6.5% before the crisis. Differentiating between subsectors, we find the steepest decrease in the trend slope for both residential and non-residential services for the elderly and disabled, the two subsectors with the steepest rises before the crisis (Fig. 5). Furthermore, the analysis discloses a decline for the largest subsector ‘social work

**Table 1** ITSA results of aggregate payroll expenses from 2003 to 2017 for the total and six subsectors of the nonprofit social services sector

Payroll expenses	Constant	Trend until 2009	Immediate effect	Aftermath effect
Total sector	20.669***	0.065***	0.065***	− 0.035***
Residential care activities for the elderly and disabled	18.390***	0.102***	0.046	− 0.061***
Other residential care activities	17.794***	0.040***	0.038*	0.000
Social work activities without accom. for the elderly and disabled	18.818***	0.086***	− 0.007	− 0.062***
Social work activities without accommodation n.e.c.	20.092***	0.052***	0.056**	− 0.031***
Child day-care activities	17.835***	0.070***	0.222***	− 0.059***
Pre-primary education	17.944***	0.061***	0.205**	0.015

\*\*\* $p \leq 0.001$ ; \*\* $p \leq 0.01$ ; \* $p \leq 0.05$ ; + $p \leq 0.10$



**Fig. 4** Immediate and aftermath effect on payroll expenses—total sector

activities without accommodation n.e.c.’ and for ‘child day-care activities’.

Tables 3, 4 and 5 in the Appendix display the results for the alternative growth indicators. Results in Tables 3 and 4 are estimated based on absolute (and not logarithm) values and Table 5 using logarithms. With regard to the alternative growth indicators, we find qualitatively very similar results between payroll expenses, payslips and sales revenues. Results for the immediate effects in 2009 and the aftermath effects are also similar for the total sector and for most subsectors. By comparing the results of Tables 1, 2, 3 and 4, we can confirm that the moderate rise in payroll expenses since 2009 cannot solely be ascribed to lower wage growth but to lower growth in employment. Furthermore, the analysis of payslips reveals the striking potential of the nonprofit social services sector as a job generator. The sector still generated jobs after 2009, but at a reduced level. While it generated an annual average of about 6500 jobs between 2003 and 2008, it created an annual average of about 3200 jobs between 2009 and 2017. Note, however, that this result also includes fluctuation of employees. Thus, this alternative employment indicator

underpins the weakened position of the nonprofit social services sector in the aftermath of the crisis, although the sector never suffered from job destruction.

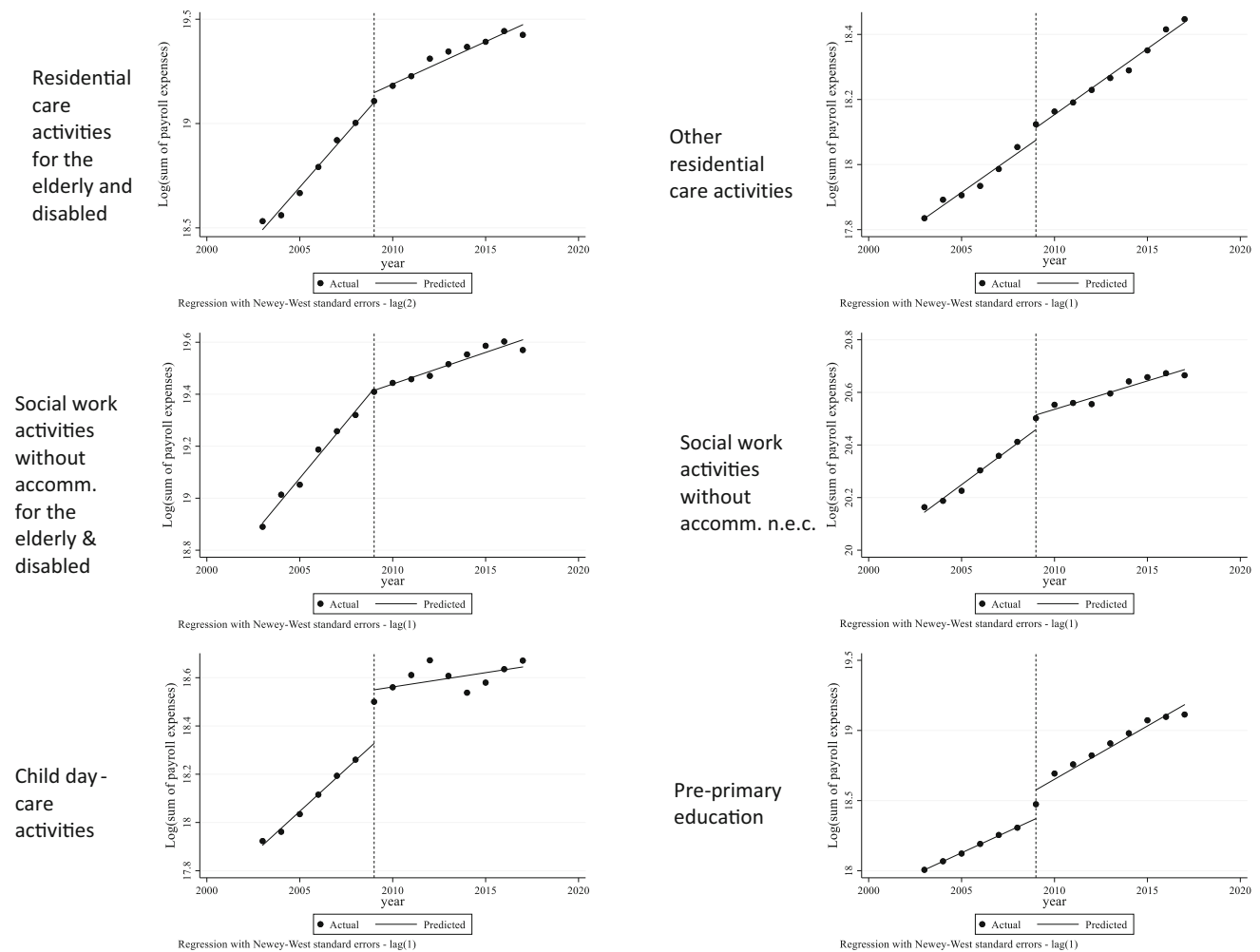
Finally as another robustness test, we changed the year of the ‘interruptive event’ in the ITSA. For this, the years 2008 and alternatively 2010 were used instead of 2009 (Table 6). For the largest subsector ‘social work activities without accommodation n.e.c.’ and ‘child day-care activities’, the immediate level effect is only significantly positive in the year 2009 and not when varying the year of the interruptive event. This confirms that 2009 is the year of the ‘interruptive event’ for these subsectors, but not for every subsector. The aftermath effect, in contrast, is also visible when using 2008 or 2010 instead of 2009 for the total sector. The coefficients of the aftermath effect grow each year (in negative terms), which we take as a further sign that the development of social service organizations slowed down during and after the crisis, independent from the question whether we assume the ‘interruption’ in the year 2008, 2009 or 2010.

## Discussion and Conclusion

Following the global economic crisis, nonprofit organizations in many countries had to deal with cost containment and retrenchment of public funding. However, previous research found them to be remarkably resilient, at least in the short term (Pape et al. 2019). The purpose of this paper was to investigate the impact of the crisis on the entire sector’s short-term as well as longer-term development, based on a large set of quantitative data and focusing on the corporatist Austrian welfare state. We studied the extent to which the post-crisis development of the Austrian nonprofit sector matched findings for other countries—accounting for the specific context—and expanded previous research in scrutinizing the sector’s long-term resilience.

Our results are in line with the conclusion by the study of Pape et al. (2019). In a period of low economic growth,





**Fig. 5** Immediate and aftermath effect on payroll expenses for different subfields

the sector indeed proved to be rather stable and resilient. In Austria, it remained a growth sector, continuing a long-term trend that has been discussed previously in the literature (e.g. Evers et al. 2011). However, the average annual rise in payroll expenses, both for the total sector and most subsectors, was considerably and consistently lower after the crisis than before, which points towards a longer-term scarring impact of the crisis. Even more worrying, some subsectors actually have started to shrink in recent years, especially in terms of the number of active organizations. This latter finding points towards an increase in market concentration, where organizations have grown bigger in size over time, but also fewer in number. Such a development has also been described for nonprofit sectors in a more liberal context (Backus and Clifford 2013; Tucker and Sommerfeld 2006). This reduction of active organizations could be interpreted as a ‘normal’ market reaction in a more marketized social services sector, where inefficient firms are forced out of the market. While the sector has been decoupled to some extent from the

macroeconomic trend via government support, it cannot be completely shielded from persistent weak economic growth over a longer period of time. Last but not least, we find no evidence of a systematic policy shift towards investment into the sector. There is no indication that the crisis was a ‘transformative juncture’.

Taken together, our results rather point towards an intensification of ongoing welfare retrenchment trends. This raises doubts how resilient the sector can be in the coming years. The slowdown in the growth of the social sector could present a challenge to adequately covering the needs of the population in need of support. It also dims the economic prospects for the economy at large. In the past, (nonprofit) social services have contributed significantly to job growth in Austria. Our findings show that the decline in the sector’s growth rates reflects in both, lower wage growth and lower job growth. Thus, the nonprofit social services sector generated fewer and less attractive jobs in the aftermath of the 2008 crisis.

There are, however, exceptions to these seemingly bleak perspectives, as the ‘pre-primary education’ and ‘other residential care’ subsectors continued to grow undeterred. The development of pre-primary education, in particular, is likely to be associated with a significant social investment package in this area, a combined effort of Austria’s federal and state governments. Future research will have to unravel whether and under which circumstances this type of public investment contributes to the sustainable provision of social services and, consequently, to stabilizing the wider economy. Growth in pre-primary education was likely—at least in parts—also encouraged by the Barcelona objectives, set by the European Union in 2002, which envisioned the development of childcare in order to facilitate female labour participation (European Commission 2013).

While explaining the development of some subsectors such as pre-primary education is comparatively easy, other growth curves are more difficult to interpret. One of the challenges in this respect is the rather broad NACE category in the social services field. To illustrate the point: the largest category is ‘social work activities without accommodation, not elsewhere classified (n.e.c.)’, which includes organizations providing labour market training as well as—for instance—abortion counselling. Accordingly, the data do not permit us to investigate potential drivers of intersectoral growth differences, such as government or market failure in providing equitable access to social services in times of crisis in more detail. According to demand-side theories, such government failure could have triggered an increase in nonprofit provision of services to specific population subgroups, the ‘social investment turn’, recomunitarization in service provision, innovation and co-production of services or increased levels of marketization and competitive pressure. In a similar vein, the data do not provide information on the territorial pattern of nonprofit service provision. Therefore, differences in community-level factors, such as income per capita and population density, and their impact in explaining the differential impact of the crisis on specific types of services could not be considered in our analysis.

Austria is a country representing a corporatist welfare state with a traditionally close relationship between the public and the nonprofit sector. Overall, its nonprofit social services sector has weathered off a singular and destructive global crisis. Compared to the effect of the crisis on the nonprofit sectors of other countries, Austria indeed stands as a positive example of a resilient nonprofit sector, as also pointed out in previous literature. As mentioned in the section ‘[Contextualizing the Austrian Nonprofit Social Services Sector and the Economic Crisis](#)’, the Austrian government showed substantial effort in containing the immediate economic shock of the crisis, including investment in families and childcare as part of an economic

stimulus package (Hermann and Flecker 2012, p. 126). As posited in interdependence theory, the government’s (continued) reliance on nonprofit providers in delivering a major part of these services could have buffered the economic fallout of the crisis in the nonprofit sector. However, the crisis still left its marks in the longer run. Furthermore, we find some variation across subsectors, which we think do not originate in differences in the level of needs of the respective target populations but go back to differences in political prioritization.

This calls for research to unravel the exact transmission channels or mechanisms causing the scars that were left by the economic crisis. Researchers could look into the relative resilience of the nonprofit social service sectors in corporatist welfare states in order to highlight the role of the institutional setting. We hypothesize—in line with the interdependence theory of sector size and growth—that in corporatist countries with service-dominant nonprofit sectors, changes in government spending in response to macroeconomic shocks take direct, strong and immediate effects on nonprofits’ sales income and employment. The government vastly relies on nonprofit service provision for which public funding is procured via different channels and government entities. With a limited number of major public funding agents and moderate variations in funding schemes, there is less reason to expect much variation in crisis response across different subsectors of nonprofit service provision or across regions. In liberal countries, direct links with government (spending) are presumably less relevant for nonprofit sector funding. Hence, the transmission of an external shock should work differently. It is filtered by the crisis response and resilience of a variety of other (non-government) funding agents (e.g. donors, creditors) and conditions on the local labour market. With more heterogeneity of the respective funding, base differential impacts of a major economic shock across sectors (and regions) are more likely. As an illustration, leveraging private philanthropic support from individuals or foundations will generally become more challenging in adverse economic circumstances and even more so in economically weaker regions—rural settings above all. Therefore, community-focused approaches in explaining nonprofit sector size and growth could be brought to bear in liberal welfare-state settings in particular.

In a similar line, we need to better understand what makes subfields of social services more or less vulnerable. It is important to investigate these issues with reliable data and for a variety of countries. As stated in the introduction, the quantitative approach chosen for this paper is not suited for revealing the underlying factors of the significant changes we identify. Thus, a qualitative follow-up study that conceptualizes the transmission channels of major economic shocks appears to be a natural next step to take.

Building on the initial findings for Austria as well as on previous literature explaining nonprofit sector size and growth, the conceptual model would exhibit how a major crisis prompts, modulates or blocks other factors known to determine the size and growth of the nonprofit sector in whole or in part.

An initial step to take is to scrutinize whether a major economic crisis is likely to affect the explanatory factors highlighted, for example, by demand-side approaches, interdependence theory, supply-side and community-focused approaches mentioned (see ‘The Impact of the Economic Crisis on European Social Services Providers’ section). In the case of government failure theory, to give an example, the question to ask is whether a major crisis can be assumed to change the pre-crisis levels of government failure and/or community diversity (and why so), thus triggering adjustments in the nonprofit sector’s activity level. In this regard, revisiting research on social investment could be an interesting starting point. Critics of the social investment paradigm, which seems to have gained momentum in temporal context of the 2008 crisis, voice concern that specific social investments strategies risk leaving parts of the vulnerable population behind. As pointed out by Deeming and Smyth (2015), the relevant UK strategy, as an example, combines strong human capital-based investment with low social protection. If the crisis relates to this specific type of social investment approach, government’s provisions for certain types of services and groups could be scaled back, calling for more nonprofit activity in the fields concerned. As a further avenue for future research related to demand-side approaches, we suggest to study how the 2008 crisis has affected the sector’s capacity to meet the needs of its target populations in broader terms. This implies going beyond the monetary measures and instead considering outcomes such as the level and quality of services provided.

In conclusion, the economic crisis initially triggered increased public welfare spending and social services

provision. This gave a boost to the nonprofit social service sector’s employment, sales income and the number of active organizations immediately after the crisis. At the same time, the global economic shock reinforced public cost-cutting efforts, reducing the growth of active organizations, revenues and wages in the later stages of the crisis. It is important to think about the consequences of declining growth rates in the longer term for the nonprofit social sector’s workforce, service users and the economy at large. If need for services does not also slow down at the same pace, for example, because demand is driven by population ageing or continued increases in economic inequality, there is a risk of deteriorating working conditions, further work intensification, labour shortages and subsequent gaps in service provision both qualitatively and quantitatively. Also in a wider economic perspective, the stuttering of a previously reliable job engine calls for political attention.

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## Appendix

See Tables 2, 3, 4, 5 and 6.

**Table 2** Development of the sum of organizations in AT’s nonprofit social services sector from 2003 to 2017

	Residential care activities for the elderly and disabled	Other residential care activities	Social work activities w/o accom. for the elderly and disabled	Social work activities w/o accom. n.e.c.	Child day-care activities	Pre-primary education	Total sector
2003	78	71	110	616	111	588	1574
2004	89	74	121	671	116	613	1684
2005	98	71	131	689	123	618	1730
2006	103	72	138	724	130	636	1803
2007	112	74	145	787	134	657	1909
2008	117	75	151	833	139	686	2001
2009	128	75	152	875	152	729	2111
2010	128	74	157	929	167	774	2229

**Table 2** continued

	Residential care activities for the elderly and disabled	Other residential care activities	Social work activities w/o accom. for the elderly and disabled	Social work activities w/o accom. n.e.c.	Child day-care activities	Pre-primary education	Total sector
2011	132	72	157	957	178	791	2287
2012	133	71	152	954	182	794	2286
2013	134	70	152	960	184	809	2309
2014	141	70	153	964	182	813	2323
2015	141	67	149	932	169	824	2282
2016	142	67	149	908	166	839	2271
2017	135	66	145	876	159	791	2172

**Table 3** ITSA results of the aggregate number of organizations from 2003 to 2017 for the total and six subsectors of the nonprofit social services sector

Organizations	Constant	Trend until 2009	Immediate effect	Aftermath effect
Total sector	1496.533***	82.086***	163.156 ***	− 76.686 ***
Residential care activities for the elderly and disabled	72.600***	7.686***	2.089	− 6.086***
Other residential care activities	70.733***	0.600*	− 0.178	− 1.733***
Social work activities without accom. for the elderly and disabled	104.267***	8.110***	− 4.820**	− 9.231***
Social work activities without accommodation n.e.c.	574.533***	41.657***	68.800 <sup>+</sup>	− 43.307***
Child day-care activities	105.400***	5.743***	24.933*	− 5.626*
Pre-primary education	569.000***	18.286***	72.333*	− 10.702*

\*\*\* $p \leq 0.001$ ; \*\* $p \leq 0.01$ ; \* $p \leq 0.05$ ; <sup>+</sup> $p \leq 0.10$

**Table 4** ITSA results of the aggregate number of payslips from 2003 to 2017 for the total and six subsectors of the nonprofit social services sector

Employment	Constant	Trend until 2009	Immediate effect	Aftermath effect
Total sector	75,116.870***	6509.943***	10,000.840 ***	− 3172.743 ***
Residential care activities for the elderly and disabled	6879.133***	847.486***	1013.689*	− 499.236***
Other residential care activities	3191.600***	118.829***	285.733**	35.471*
Social work activities without accom. for the elderly and disabled	9952.933***	1161.971***	154.933	− 721.471***
Social work activities without accommodation n.e.c.	43,907.870***	3429.943***	4927.756**	− 2223.776***
Child day-care activities	5060.000***	434.286***	1702.6444***	− 321.086***
Pre-primary education	6125.333***	517.429***	1916.089**	557.355***

\*\*\* $p \leq 0.001$ ; \*\* $p \leq 0.01$ ; \* $p \leq 0.05$ ; <sup>+</sup> $p \leq 0.10$

**Table 5** ITSA results of aggregate sales revenues from 2003 to 2017 for the total and six subsectors of the nonprofit social services sector

Sales revenues	Constant	Trend until 2009	Immediate effect	Aftermath effect
Total sector	20.707***	0.068***	0.054*	− 0.044***
Residential care activities for the elderly and disabled	18.674***	0.132***	− 0.039	− 0.094***
Other residential care activities	17.414***	0.144***	− 0.157	− 0.101**
Social work activities without accom. for the elderly and disabled	19.269***	0.065***	0.030	− 0.051***
Social work activities without accommodation n.e.c.	19.9732***	0.042***	0.059**	0.014**

\*\*\* $p \leq 0.001$ ; \*\* $p \leq 0.01$ ; \* $p \leq 0.05$ ; <sup>+</sup> $p \leq 0.10$

**Table 6** Robustness check—alternative years as ‘interruptive event’

Payroll expenses	2008	2009	2010
<b>Total sector</b>			
Trend before	0.064***	0.065***	0.069***
Immediate	0.069 <sup>+</sup>	0.065***	– 0.016
Aftermath	– 0.029***	– 0.035***	– 0.042***
<b>Residential care activities for the elderly and disabled</b>			
Trend before	0.101***	0.102***	0.102***
Immediate	– 0.075	0.046	0.002
Aftermath	– 0.054***	– 0.061***	– 0.066***
<b>Other residential care activities</b>			
Trend before	0.034***	0.040***	0.045***
Immediate	0.052**	0.038*	0.005
Aftermath	0.007*	0.000	– 0.004
<b>Social work activities without accommodation for the elderly and disabled</b>			
Trend before	0.091***	0.086***	0.085***
Immediate	0.013	– 0.007	– 0.059**
Aftermath	– 0.063***	– 0.062***	– 0.061***
<b>Social work activities without accommodation n.e.c.</b>			
Trend before	0.050***	0.052***	0.057***
Immediate	0.065	0.056**	0.006
Aftermath	– 0.025**	– 0.031***	– 0.037***
<b>Child day-care activities</b>			
Trend before	0.069***	0.070***	0.089***
Immediate	0.188	0.222***	0.090
Aftermath	0.042**	– 0.059***	– 0.082***
<b>Pre-primary education</b>			
Trend before	0.062***	0.061***	0.072***
Immediate	0.119	0.205**	0.212***
Aftermath	0.024 <sup>+</sup>	0.015	– 0.007

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