Employee Exodus: The Impact of Government Downsizing on Benefit Access*

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Abstract

The US Social Security Administration administers retirement, disability, and low-income safety net programs supported by their network of field offices providing in-person customer service. I use employee microdata and a long-differences approach to analyze how staffing decreases during the Reagan era affected program enrollment. I find that a 10% decrease in field office employees in a county led to decreases in enrollment for Old-Age, Survivors and Disability Insurance (OASDI) benefits of 0.06%, driven primarily by disability insurance, and 0.32% for Supplemental Security Insurance (SSI) benefits. These reductions imply 79,027 fewer enrollments nationwide than would have occurred absent the staffing cuts.

Keywords: Administrative capacity, Administrative Barriers, Government Staffing, Social Security, Disability Insurance, Supplemental Security Income

JEL codes : H11, H53, H55,H61, H83, I38, J45, D61, D73

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1 Introduction

Government agencies are frequently subject to cost-cutting measures, often following public debates about appropriate expense levels. While in the general public the discussion is often framed as agencies "losing money" (for example, Reuters' headline "U.S. Postal Service reports $4.9 billion 2021 net loss"[1]), government service provision is intended to be welfare-maximizing rather than profit-maximizing, raising the complex question of optimal spending levels. Particularly for in-person services, the trade-off between cost and access can be difficult to balance; the government must decide how many offices to provide, where to place them, and how much staff each office should have. Many services provided by the government have some component of mandatory or optional in-person administration.

This paper addresses the role of public personnel levels as a facet of administrative capacity. One of the largest components of administrative spending throughout the federal government is labor costs, yet we know little about optimal levels of staffing in the public sector, especially with regard to public-facing roles. Does the quantity of personnel in front-line positions have downstream impact on citizens' access to services? I will investigate this question in the context of a massive overhaul in the staffing of the Social Security Administration.

The Social Security Administration shed approximately 17,000 employees between 1985 and 1990, equivalent to 21% of its total workforce. This downsizing was initiated by the Office of Personnel Management (OPM) at the directive of the Reagan administration, in an attempt to rein in growing federal budgets.

[1] https://www.reuters.com/business/us-postal-service-reports-49-billion-2021-net-loss-2021-11-10/

The downsizing was accomplished almost exclusively by employee attrition, waiting for employees to leave voluntarily, and then not backfilling those positions, allowing for significant variation in the amount of staff lost. It was unclear at the time if this downsizing would impact agency performance. Despite the major change in public service provision that it entailed, this is the first paper to examine this episode of SSA history. In addition to the contributions this paper makes to the literature, which are outlined below, I attempt to characterize the episode as thoroughly as possible using archival documents, government reports, and news articles.

I use data from employee personnel records for the universe of SSA employees and beneficiary enrollment statistics for all SSA programs to analyze the impact of staffing decreases on program enrollment. Using a logarithmic differences approach to measure the impact of a percentage change in field office staffing on benefits enrollment, I find that a 10% decrease in field office employees in a county led to a 0.06% decrease in benefits enrollment in Old-age, Survivors, and Disability Insurance (OASDI), driven by an underlying 0.15% for disability benefits, and 0.32% decrease for overall enrollment in supplemental security insurance (SSI) driven by impacts of equal magnitude across those eligible by old age and those eligible due to blindness or disability. I then do back-of-the-envelope calculations to translate this effect in the mean office into a total effect size and find that the downsizing translates to approximately 84 fewer beneficiaries per county (50 OASDI, 34 SSI), or 79,027 people nationally (47,285 OASDI, 31,742 SSI), who counterfactually would have enrolled by the end of this downsizing period.

This paper contributes to the literature in three key ways. First, this is the first paper to investigate the importance of staffing levels within government

offices. This is a difficult question to answer causally, as staffing is often based on local program demand and therefore endogenous. In this context, the choice of the agency to downsize through attrition, leaving the decision with individual employees, avoids this endogeneity. This question is complementary to previous literature on barriers to program uptake which use discrete office openings and closings in SSDI (Deshpande and Li, 2019) and SNAP uptake (Bitler et al., 2023) to show that proximity to an office matters through travel costs. In this context, the offices did not close; they simply staffed at a lower level, leaving travel costs unchanged.

Second, much of the broader literature on administrative burdens is focused on individual programs, making comparisons between programs difficult. For SSDI particularly, previous literature has found that increased wait times for SSDI processing led to decreased applications the following year with differential wait-times across geographies (Michaud et al., 2019) as well as negative impacts on labor force participation for those who have applied for SSDI, independent of decision outcomes (Autor et al., 2017). The literature on cross-program administrative costs is newer. Wu and Meyer (2023) use the roll-out of automated systems to measure the impact on initial enrollment and re-certification in Medicaid, SNAP, and TANF; they find a decrease in take-up among all three programs, and additionally that the populations screened-out at initial enrollment versus re-certification are fundamentally different. However, the three programs have a large overlap in their eligible populations compared to the programs administered by SSA, in which citizens may be eligible for multiple SSA programs but relatively few are. I capture the effects across different programs administered by the same agency, allowing me to compare how one administrative change can

have disparate impacts between programs.

Finally, my paper gives some further insight into the growing literature of public service provision under technological improvement. In the backdrop of the downsizing, there were two technological initiatives taking place in SSA to modernize automated payment systems and expand telephone-based service. The persistent negative impact I find implies that ADP updates and phone services may have partially, but could not completely, substituted for in-person rural outreach services or field office staffing. This is an important finding in light of current transitions to online administration; digitization has an important role to play in outreach and program take-up (Gallegos et al., 2023) but may not fully replace in-person services.

The remainder of the paper is as follows: Section 2 will establish the institutional background, section 3 will discuss the data and empirical strategy, section 4 includes the results and places them into context of agency function, and section 5 concludes.

2 Background

Old-age, survivors, and Disability insurance (OASDI) is funded through payroll taxes (FICA& SECA); this money is added to a trust fund that can only be used to fund OASDI and its administration. Although administrative funding for the agency comes directly from the trust fund and is therefore unable to be reallocated outside of the SSA, the agency still must go through the congressional appropriations process to gain approval for their budget each year. The administrative expense ratio for OASDI during our period of interest was approximately

0.5% of yearly expenditures.

SSI was created in 1974, nearly four decades after the original social security program, to fill the gap in the safety net for those who do not qualify for OASDI due to lack of work history, or in some cases those who do qualify for OASDI but still have sufficiently low income. SSI was growing rapidly in the lead-up to the period of interest, with SSI blind and disabled claims increasing 80% between 1984 and 1990. [2]

2.1 Downsizing

The downsizing was achieved by a hiring freeze directed by Ronald Reagan to Acting Commissioner of SSA Martha McSteen. The aim was to reduce the workforce by approximately 17,000 positions between 1985 and 1990: from 80,000 in the baseline year of 1984, to 63,000. This was achieved only through attrition, as it was believed that reductions in force (RIFS) would be more traumatic for the workforce. This paper focuses only on the downsizing of field offices, which saw a decrease in staff from 42,225 to 34,704, or a loss of 17.8%. 91% of field offices saw a reduction in staff, of which 64% lost at least 20% of their staff. The primary responsibilities in field offices were claims processing, clerical, and customer service related responsibilities. Field office employees did not have any role in disability determinations.

In addition to the downsizing of field offices, which are the primary interface with the public, the hiring freeze saw closures of contact stations. Contact stations were part-time offices staffed by field office employees on a visiting basis and located in nursing homes, community centers, and gathering places in rural

[2]GAO/HUD-91-63 SSA's Performance in Downsizing

areas where travel to field offices is costly. Little information is available about the contact stations, though some reports imply that the stations closed because the field offices no longer had enough staff to support them.

The plan did not need congressional approval and was received with mixed reactions from elected officials. Some believed that it would threaten the timely receipt of benefits by constituents. Others were concerned that the plan would backfire, "overtime costs would rise, employees would have to be retrained and the number of erroneous benefit payments would increase."[3].

A major goal of the agency during the 1980s was technological improvement. The agency prepared a Systems Modernization Plan (SMP) in 1982 to solve the problem of outdated technology and automated processing nearing collapse. This was one contributing factor to the downsizing, with the agency believing that "with new computer equipment the Social Security agency could deliver a higher level of service with fewer employees."[4]. $500 million was allocated towards the SMP; however, the plan was already significantly behind schedule and over-budget by the time the downsizing was proposed in 1985. The SMP prioritized automated data processing capabilities, telephone service centers (centralized and toll-free), and computers throughout the network of field offices. Teleservice centers operated in each time zone and employees could answer general questions and initiate applications. According to the SSA "between 1987 and 1988, claims filed over the telephone increased from 20 percent to 40 percent"[5]. 25,000 computer terminals were implemented in field offices between 1987 and 1989. However, receiving computers was far from a panacea: It was difficult to

[3]https://www.nytimes.com/1985/04/04/us/21-cutback-in-social-security-staff-planned.html
[4]https://www.nytimes.com/1985/04/04/us/21-cutback-in-social-security-staff-planned.html
[5]GAO/HUD-91-63 SSA's Performance in Downsizing

reprogram them in response to legislative changes, so employees often ended up manually recalculating benefits [6].

A Government Accountability Office (GAO) report from the conclusion of the downsizing, excerpted and shown in Figure 3, shows mixed results for performance measures at the national level: the accuracy and processing rates for retirement benefits were stable, while wait times for administrative hearings, especially related to disability insurance, increased. The stable accuracy rates and decreased pending workloads for retirement benefits may be due to technological improvements in the field offices and central operations. In other words, counterfactual performance could have been worse at the same level of downsizing had the improvements not occurred. Additionally, attrition rates varied wildly between offices, and the national statistics in the table could mask heterogeneous impacts.

The GAO includes in its report, quite pointedly, that the "SSA does not have work load time standards on which to base its staff needs assessments and cannot compare actual to expected performance. Consequently, SSA cannot accurately determine, at any point in time, what its total staff needs are and cannot perform needed workforce planning."[7]

[6] GAO/HUD-91-63 SSA's Performance in Downsizing
[7] GAO/HUD-91-63 SSA's Performance in Downsizing

3 Empirical Strategy

3.1 Data

There are two main sources of data for this project: the first is federal government employee microdata from the Office of Personnel Management obtained via the Freedom of Information Act by Buzzfeed News. The dataset covers the universe of SSA employees from 1974 through 2014 and provides personnel data for all employees, including their work location. The second source is Social Security beneficiary data from the yearly statistical reports, recently digitized as part of an NBER RDRC project [8].

I use 1984 as the base year for my analysis to align with the SSA's benchmark staffing level [9]. I am primarily concerned with the downsizing in the field offices, which were customer-facing, as opposed to centralized operations. These centralized operations handled higher-level administration such as disability determinations, and while they also experienced significant downsizing during this period, that effect should be uniform across geography.

The main source of data for field office staffing levels is employee microdata from the Office of Personnel Management that covers the universe of SSA employees since 1974. The data is at the individual level and contains an identifier and name, as well as information about their age (in five-year buckets), location at the city level, educational attainment, years of service (in five-year buckets), as well as occupation, supervisory status, full-time status, and salary. The most common occupation titles for field office employees are social insurance admin-

[8] I am grateful to Tim Moore for sharing this data.
[9] GAO/HUD-91-63 SSA's Performance in Downsizing

istration (43%), claims clerical (19%), and contact representative (13%). The modal age group in the base period is 30-34 (see Figure 4 in the appendix for the full distribution). Detailed separation reasons exist beginning in 1987; for the 1987-1990 segment of the downsizing, the most common types of separation are quits (47%), retirement (25%), and termination for performance or conduct (12%) (see Figure 5). There are no employees listed as reductions-in-force (laid off).

I check the total headcount for both the number of unique employees and the equivalent full-time employees for a divergence that may indicate variation in attrition or loopholes in the hiring freeze (see Figure 1). The data do not show a divergence so the measures are proportionate; I proceed with a simple headcount for the analysis.

I remove cities that match locations of central operations as they do not serve the public, and any non-US operations (likely staff placed at embassies) as the beneficiary data are only for US states. Then I group employees at the county level in order to match the level of detail of beneficiary data available from the Social Security Administration.

Social Security beneficiary data are at the county-year level. The number of active beneficiaries is broken down by program and recipient connection, where applicable (i.e., worker, spouse, or children). Data are available for Old Age, Survivors, Disability, and Supplemental Security Insurance, allowing complete coverage of SSA program disbursements. Due to limitations in the beneficiary data the boroughs of New York City are combined into one observation for all data used in this paper.

Lastly, the data used for the controls, outlined in more detail below, are from

the 1980 and 1990 decennial censuses obtained through IPUMS NHGIS (Manson et al.).

I begin by limiting the sample to counties with at least one SSA employee in the base period; the sample represents about 30% of the counties in the US. One limitation of this approach is that counties without employees could still have contact stations, where an employee from the nearest field office provides limited service in a community center or nursing home on a visiting basis, and those would be excluded from the sample. The employee would still be listed as belonging to the city of the field office they are based in, and I have not found any reports that contain the locations of these stations. In the event that a field office employee who staffed resident stations in neighboring counties departed during the downsizing, it would slightly overstate the staffing reduction in the field office county, thus understating the impact of the downsizing on benefits enrollment, and understating the overall impact as the impacted county is out of sample. Therefore, excluding counties with no permanent employees simply provides a more conservative estimate of the impacts. A map of the staff loss at the county level is shown in Figure 2.

Counties in this sample are more likely to be population-dense urban or suburban counties, with those out-of-sample disproportionately rural. Beyond population density, there do not appear to be any regional patterns indicating other unobserved influences; the variation seems well distributed across the country. I verify in Table 6 that there is no diverging enrollment trend between offices' later staff loss and their program enrollments in the pre-period 1983-1980. For counties that have zero employees in the end period, these are treated as true zeros and transformed using a standard log(x+1) approach. Robustness tests

using other transformation functions can be found in Table 7 in the appendix.

3.2 Empirical Model

I use a long differences approach to capture the overall change between the pre-downsizing base period and the end of the hiring freeze in 1990. This method is beneficial because it accommodates cumulative changes over the period and bypasses a data limitation of 1986 beneficiary data as a 10% sample as opposed to a full population like in other years.

The full specification includes controls and state fixed effects as follows:

$$\Delta Enrollment_{pi(s)}^{1990-1984} = \alpha_0 + \alpha_1 \Delta SSAEmployment_{i(s)}^{1990-1984} + \alpha_2 W_i + \psi_s + \epsilon_{pi(s)}$$

$\Delta\ Enrollment_{pi(s)}$ represents the log change in number of beneficiaries for program p in county i from 1984-1990. $\Delta\ SSAEmployment_{i(s)}$ is the log change in SSA Employment in county i, in total headcount, over the same period. Lastly, W_i is a vector of controls in county i: change in unemployment rate, log change in county population, log change in number of citizens age 65 or older, and ψ_s are state fixed-effects.

The main threat to identification is endogeneity introduced by local economic conditions which could affect both benefits enrollment decisions of residents and labor market decisions of staff. The literature shows evidence of counter-cyclicality regarding disability insurance applications (Autor and Duggan, 2003) and under specific circumstances SSI applications (Nichols et al., 2017), in addition to evidence that recessions prompt an increase in early retirement (Fichtner et al., 2012). National economic trends are not an issue for identification, but diverging local economic conditions could be. In order to help

control for this variation in local economic conditions, I include a measure for the raw change in unemployment rate in each county, to capture diverging economic trends. [10]

Programmatic changes to OASDI or SSI, such as the implementation of reforms from the 1983 Social Security Amendments or other policy changes, would not be a threat to identification unless they systematically affect both enrollment levels and staff's attrition decisions at the local geographic level. I am not aware of any policy changes that would meet this criterion.

Other controls include logarithmic change in population and logarithmic change in population over age 65 in order to remove effects from overall growth trends. During this period most counties were experiencing growth in population levels which would imply an increase in the number of beneficiaries. The separate age-by-population component is to control for variation in demographics within this baseline population growth (decline). In particular, nearly 97% of Americans aged 60 or older currently receive or will receive social security retirement benefits [11]. Therefore, we would expect different levels of demand for a college town and a retirement community growing at similar rates.

4 Results

4.1 Topline: OASDI & SSI

I estimate three different model specifications for the topline (OASDI & SSI) programs: one with no controls or fixed effects, one with the controls outlined

[10] A previous attempt at circumventing this endogeneity using the age composition of field office employees as an instrument for downsizing failed due to a weak first stage.

[11] https://www.ssa.gov/policy/docs/population-profiles/never-beneficiaries.html

above but without fixed effects, and one with the full specification outlined in the model. In the basic specification, I measure only the association between staffing changes and enrollment changes. By adding in demographic controls and controlling for change in unemployment rate any bias coming from changes in underlying population or local economic conditions should be removed from the estimate. Finally, by adding state fixed effects, variation from unobserved state-level factors is removed, such as other state-level policies affecting the targeted population (other program funding, other social services) or the employees (state minimum wage changes or unemployment insurance variation).

In all specifications, the coefficient estimates are positive indicating that a decrease in SSA employees in a given county is associated with a decrease in beneficiaries in that county.

Specifications (1) and (4) show larger magnitudes which then moderate with the inclusion of population and demographic characteristics, suggesting that part of the lesser increase in enrollees may be due to a decrease in eligible residents or improving job market conditions decreasing demand. The addition of state fixed effects further moderates the results. For the remainder of the paper all analyses will use the specification in (3) and (6).

The effect size for the enrollment of SSI is five times that of OASDI. There are a variety of possible mechanisms that could be driving this disparity, notably differences in the targeted population, differences in potential benefit amounts, the salience of the programs, differences in administrative requirements, or any combination thereof.

It may be that the administration that occurs within the field office is more cumbersome for SSI than OASDI. SSI customers may require more assistance

with their forms, may include a higher amount or more complex paperwork than OASDI, or require specialized institutional knowledge or skills among the office staff. If SSI processing involves more work or is more prone to errors, then the larger effect could be driven by aspects of the program administration itself rather than the characteristics of the applicants.

Benefit amounts vary between programs. If being understaffed led to increased wait times in offices, then SSI hopefuls may be more sensitive to the additional ordeal mechanism than OASDI due to differing benefits levels. In 1987 the monthly benefit for SSI for an individual was $340 (2023$930) compared to up to $1,056 (2023$3,021) for OASDI retirement benefits if retiring at age 70 with maximum contributions.

Internal documents indicate that one of the major cutbacks required with the loss of staff was outreach: OASDI, being an older program with wide applicability and high salience, may not suffer from loss in marketing and outreach. SSI, while nationally increasing enrollments over this time period, was barely a decade old and applicable to substantially fewer people.

Lastly, SSI hopefuls may be fundamentally different from OASDI hopefuls in a way that is impacted by downsizing. At minimum, we know that the composition of these programs is different: in 1984 aged recipients made up 42% of SSI recipients on average compared to 58% of OASDI recipients at the county level. Aged residents may have more patience to wait than disabled residents or better ability to substitute towards phone-based service.

In all likelihood, the effects are due to some combination of these mechanisms; however, I am not aware of the existence of data from this time period that would help to untangle them.

Restricting the sample to counties with offices provides a conservative estimate of the impacts of the downsizing by ignoring spillovers. The largest spillover effects would be felt by exurban and rural counties that do not have an office, but in which the residents travel to nearby counties to visit their Social Security offices. In order to expand the generalizability of the analysis, I run the same regression with an expanded sample to include all counties regardless of the presence of employees in the base period. I use a distance-weighted nearest-neighbor approach, assigning each county with zero employees the value of employees of its nearest nonzero-employee neighbor. I set the maximum distance of 100 miles as a plausible ceiling on travel, which excludes only 13 counties, and then gradually decrease the distance in increments. The results for this expanded sample are shown in Table 2 together with the results of the restricted sample from Table 1 reiterated for ease of comparison.

For both OASDI and SSI, the original results are consistent only for counties within 10 miles; beyond that distance, the results are indistinguishable from zero. This matches the intuition that the effects in farther counties would be muted either because they were not receiving substantial outreach prior to the downsizing or because residents were already accustomed to interacting with the agency by alternative methods.

4.2 Program Components

Breaking down the programs into their sub-populations is helpful for trying to understand the heterogeneous impact of the downsizing. OASDI is composed of Old-Age, Survivors', and Disability (SSDI) components. Old Age benefits are available starting at 62 for early retirement through age 70 for delayed re-

tirement, with 67 being the standard full retirement age for anyone born after 1960. All three components under OASDI require work credits, earned through the payment of FICA payroll taxes. SSI is composed of Old-Age, Blind, and Disability components, but unlike OASDI, SSI does not require any earned work credits, only income and asset qualifications. The physical standards for eligibility for disability benefits are the same across OASDI and SSI. Therefore, we do not expect these populations to vary in severity of disability, though they may differ in other respects.

Table 3 shows the main specification from section 3.2, but with log change in beneficiaries within each program as outcomes in separate regressions. Starting with OASDI, the magnitude of the point estimate for SSDI is several times larger than that for retirement benefits, and both retirement and survivors' coefficients are not precisely estimated. Retirement benefits have nearly perfect take-up (approximately 97%) so it is unlikely that retirees forego benefits entirely, however it is possible that administrative challenges lead them to delay enrollment.

SSI point estimates are identical between the old age population and the blind & disabled population in both samples. Compared to OASDI, SSI does not seem to face intra-program variation in effect based on the target population. The estimates for both SSI populations are also larger than the SSDI estimate, suggesting SSI faces overall higher barriers to enrollment when short-staffed, even among similarly-disabled constituents.

Citizens may choose to visit offices other than their closest during this time period if, for example, they hear through word of mouth that waiting times for service are high. In that case the results would be underestimated as spillovers of service provision to neighboring counties occur; enrollment would be less respon-

sive to change in staff than if residents were bound to an office in their county. Permanent sorting by residents, as in relocating to neighboring cities or counties, would overestimate the results; however, I think that situation is unlikely.

Results are robust to adjusting the time period both earlier and later. Adjusting the base period to 1980 and 1982, results remain largely the same. There could be concerns that ending the period in 1990 may be too early if citizens who were otherwise eligible for benefits chose to delay enrollment due to administrative challenges. In this case, we would expect to see an increase in enrollment in the years following 1990 leading to an overestimated effect in the primary results. Alternatively, there could be a delay in the time it takes for the effects of the downsizing to be felt. In this case, we would expect the primary results to be underestimated. Since the results are robust to a later ending period, we can conclude that either these forces are immaterial or that they offset.

Immediately after the hiring freeze ended in 1990 compensatory hiring began. The total field office headcount rebounded by approximately 2,500 employees by 1993 then remained fairly steady in the following decades. It is impossible to accurately capture long-term persistence due to this rebound hiring, as it was fully endogenous. However, results are consistent when the dependent variable is adjusted to cover 1980-2000.

Another factor that may moderate the results is the crowd-in of nongovernmental organizations expanding services to fill the void left by SSA's downsized footprint (see Hungerman (2005)). This may take the form of additional outreach or services by non-profits to assist residents in applying for benefits, coordinating transportation to field offices, or providing support that would lessen incentives to apply for benefits (e.g. someone who may be eligible for disability benefits

receives enough support from non-governmental organizations that applying for DI benefits is outweighed by the burden).

I perform a series of placebo tests using other social insurance programs to ensure that these results do not reflect general trends in welfare program enrollment. Enrollment data are not available at the county level for most programs; however, program expenditure data are available from the US Bureau of Economic Analaysis (BEA) Regional Economic Accounts (table CAINC35). I follow the main regression specification but replace the dependent variable with a log change in program expenditures for SNAP, EITC, "Other Income Maintenance" (including AFDC) and "Public Assistance Medical Care Benefits" (including Medicaid). The results of this test can be seen in Table 4. Coefficients of interest for SNAP, AFDC, and Medicaid are all statistically indistinguishable from zero so the results for SSA-administered programs are unlikely to be caused by general welfare trends. The result for EITC is positive and significant; however, the EITC underwent major changes in the 1980s [12] making it difficult to speculate on the mechanism of correlation.

4.3 Targeting

There is no available individual-level data for applications of benefits recipients, making analysis of targeting and efficiency more difficult. However, the SSA statistical supplement contains the total value of receipts for each program by county. I calculate the average dollar receipt per beneficiary by program and regress it on the change in employment, following the main specification for enrollment in the original restricted sample.

[12]For a legislative overview of the EITC, see https://www.congress.gov/crs-product/R44825

Results (shown in Table 5) show a negative and statistically significant result for SSDI, but no significant results for SSI. Counties that saw a larger decrease in employees during the downsizing saw larger decreases in enrollment, but *smaller* decreases in average benefit amount for SSDI. SSDI benefit is a function of income, so a higher average benefit indicates a wealthier average beneficiary while lower income would-be beneficiaries are unable to enroll.

In contrast, SSI benefits are a standard amount that can be decreased based on other income or program support. The lack of change in average receipt reflects the low variation of benefit amounts, but we do not know anything further about the relative economic need of marginal beneficiaries, besides that they would meet the income and asset restrictions for SSI.

4.4 Shortfall Estimates

To better understand the results in the context of a national change, I will proceed with some back-of-the-envelope calculations to interpret the effect of downsizing within field offices.

α_1 is the point estimates from the topline regressions in section 4.1 for each OASDI and SSI.

$$\text{Mean } \Delta\text{SSA Staff} * \alpha_1 = \text{mean treatment} \tag{1.1}$$

$$\text{mean enrollment}_{1990} * \text{mean treatment} = \text{shortfall/ county} \tag{1.2}$$

$$(\text{shortfall/ county}) * \#\text{ counties in sample} = \text{total shortfall} \tag{1.3}$$

Using the mean 26 log-point staff loss, the mean treatment effect is -0.16% for OASDI enrollment and -0.83% enrollment for SSI (eq. 1.1). The sample mean for total OASDI enrollment in 1990 is 32,161 people, and for SSI is 3,991 people.

Translating the mean treatment effect predicts a 83.7 person (50.2 OASDI, 33.5 SSI) decrease per county in enrollment (eq. 1.3), which multiplied by the number of counties in sample would have been 47,285 beneficiaries lower for OASDI and 31,742 beneficiaries lower for SSI than the counterfactual estimate (eq. 1.4), combined for a total national shortfall for affected counties of 79,027 beneficiaries. I interpret this as the enrollment "shortfall" due to the impact of field office downsizing.

There are key points to consider when interpreting these results in light of the objective of an optimal level of administrative staffing. Focusing on SSI, any decrease in take-up is likely based on an administrative margin rather than a labor force margin. That is, we know that this population has few or no work credits as they would otherwise earn enough from OASDI (or labor income) to no longer be eligible for SSI. Therefore, we can assume that few or none of these marginal beneficiaries would join the labor force in the absence of SSI benefits, especially for those who are categorically eligible due to old age. In that light, the downsizing mechanically increased poverty for some thirty thousand extremely low-income citizens (excluding consideration of crowd-out from other public programs or nongovernmental sources).

However, the total shortfall of 79,027 beneficiaries against the loss of approximately 9,200 staff (59% decrease over the base period), which equals 8.6 beneficiaries per employee, can provide a benchmark against which to compare other methods of administrative support and targeting.

As a further exercise, I provide upper and lower bounds on the estimated cost of administrative support for the shortfall of enrollees. For the lower bound I use the salary information from the OPM personnel data. OPM salary data only

includes base salary but excludes overtime, bonuses, and non-salary costs like health insurance or pension contributions. First, I sum the total yearly salary expense by quarter. To smooth quarterly variation I average over each calendar year. Then I subtract from the base period of March 1984. The cumulative salary savings through 1990 using this method is $400.8M; dividing out that sum by the enrollment shortfall of 79,027 yields $5,072 (1990) per marginal beneficiary in administrative support costs.

As an upper bound, I take the reported costs savings from the GAO report debriefing the downsizing in 1991 [13]. GAO places the total personnel cost-savings at $1.8B (1990), which includes both field office and central operations staff but does not specify which non-salary components are included. Field office staff made up 59% of the total staff loss but also have lower salaries and lower GS-scale ranking on average than central operations, so conservatively I allocated 50% of the savings to field office staff. Then following the same steps as for the lower bound, I divide $950M by the shortfall which yields $12,021 (1990) per marginal beneficiary.

Adjusting the bounds for inflation, I estimate that each marginal beneficiary costs between $12,042 and $28,540 in 2025 dollars to enroll or maintain enrollment by field office staff. These estimates do not represent the worthiness of beneficiaries or statements of marginal costs versus benefits; their purpose is only to benchmark against the costs of alternative measures of administrative support. For example, the salary of a social worker for the federal government (Department of Veterans Affairs) is approximately $75,000 per year [14]. There-

[13] GAO/HUD-91-63 SSA's Performance in Downsizing

[14] obtained from open listings on USAJOBS on Feb 26, 2025

fore, when comparing field office staff to hiring a social worker, maintaining field office staff would be the less efficient option if a social worker could engage at least 2.63-6.23 beneficiaries. If a social worker could not, then the field office staff would be more efficient by reducing the administrative burden; this may be through outreach, trainings, reduced wait times, workload allocation, or other barriers discussed previously.

Traditionally, welfare programs have calculated administrative cost ratios as cents per dollar of benefits paid out (see (Isaacs and Andrews) for a valuable overview). There are valid reasons to do so, most importantly that both numbers are easily attainable and do not rely on estimates of which participants are marginal. However, they are highly skewed by the fact that welfare programs vary widely in benefits amounts, and those benefits do not necessarily scale with the administrative burden on applicants or staff. Within SSA retirement benefits are the most routine enrollment processes, yet pay both higher benefit amounts and to more beneficiaries than SSI.

This measure of administrative cost per marginal beneficiary more accurately reflects the location on the marginal cost curve; it does not imply equal administrative costs among all recipients and is more accurate when comparing marginal levels (in this case staffing, but also applies broadly) of administration against other methods of reaching the same beneficiaries.

5 Conclusion

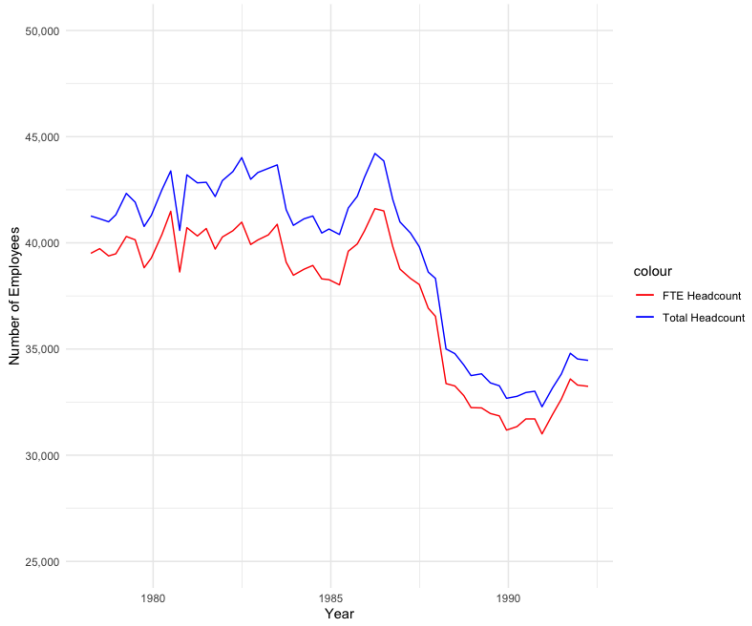
In order to evaluate the impact that the decrease in front-line staff had on program enrollment, I use rich employee microdata and enrollment statistics to

measure the impacts across OASDI and SSI programs administered by the SSA. The greatest impacts were to social security disability insurance and supplemental security income, for both aged and disabled recipients. Retirement benefits were not strongly affected, nor were there strong spillovers effects to less populous counties. On the margin of disability insurance, the shortfall was in below-average-income participants.

Although the marginal effects of a percent change in staffing are modest, this downsizing was substantial and it is important to place the estimates in context of the size of hiring impacts and the size of these programs. The estimated shortfall of approximately 79,000 beneficiaries is a moderately large effect when considering that this analysis focuses solely on field office staff with no consideration of attrition in central operations.

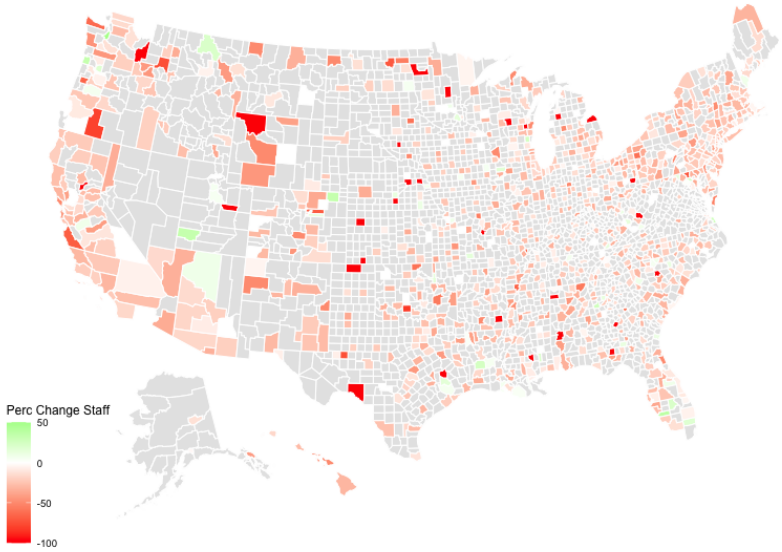
Technological improvements and call centers, which were meant to improve efficiency and client service, may have had an impact in improving enrollment across the board akin to a rising tide lifting all boats. However, the improvements were insufficient to fully mitigate the impacts of sudden downsizing in terms of substitution for labor, since there is still variation in enrollment based on local office staffing levels. This is not to say, in any generalized way, that labor and capital are unequal substitutes; however, it highlights the importance of timing in smoothing operational capabilities during major transitions. Since the attrition policy was implemented prior to the completion of the system modernization, delays in the implementation, as well as administrative needs that were not substitutable to technology, left gaps in service.

Figure 1: Field Office Headcount



Comparison of the number of unique employees with the same adjusted for part-time employees adjusted in half. The bump in 1987 is due to special hiring to staff a call center in Falls Church, VA; these employees are excluded from all subsequent analyses as they are not field office staff.

Figure 2: Log Change in FTE Employees



Map of the log change in full-time equivalent employees between 1984 and 1990. There were a total of 13 office closures during this time period due to geographically reallocated or no staff, belonging to the counties showing 100% decrease. Part-time employees are treated as one-half of a full time employee.

Table 1: Topline Program Results

	OASDI	OASDI	OASDI	SSI	SSI	SSI
Log Change	0.041***	0.008**	0.006**	0.053***	0.033**	0.032***
Employees	(0.008)	(0.003)	(0.003)	(0.018)	(0.015)	(0.011)
Num.Obs.	941	941	941	948	948	948
R2	0.031	0.815	0.864	0.014	0.188	0.585
Controls	No	Yes	Yes	No	Yes	Yes
State FE	No	No	Yes	No	No	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Results of log-differences regression for OASDI (specifications 1-3) and SSI (specifications 4-6). Controls for demographics and change in unemployement rate are excluded in specifications 1 & 3. State fixed effects are included in specifications 3 & 6. The difference in number of observations is driven by the underlying beneficiary data.

Table 2: Topline Results by Distance

	100 Miles	75 Miles	50 Miles	25 Miles	10 Miles	In-County Only
OASDI						
Log Staff Change	0.001	0.000	−0.002	0.003	0.006**	0.006**
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Num.Obs.	3053	3004	2802	1821	959	941
R2	0.764	0.771	0.784	0.813	0.845	0.864
SSI						
Log Staff Change	0.008	0.004	0.006	−0.018*	0.033***	0.032***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)
Num.Obs.	3058	3009	2808	1827	966	948
R2	0.353	0.353	0.393	0.476	0.577	0.585

* p < 0.1, ** p < 0.05, *** p < 0.01

Results of log-differences regression for OASDI and SSI with variable distance limits. Controls for demographics and change in unemployement rate as well as state fixed effects are included in all specifications. The difference in number of observations between OASDI and SSI is driven by the underlying beneficiary data.

Table 3: Breakdown by Sub-Program

	OASDI			SSI	
	Retirement	Disability	Survivors	Old Age	Blind & Disabled
In-County Office					
Log Staff Change	0.004	0.015**	0.004	0.025*	0.025**
	(0.003)	(0.008)	(0.004)	(0.014)	(0.011)
Num.Obs.	941	941	941	948	948
R2	0.882	0.552	0.767	0.495	0.458
Up to 50 Miles					
Log Staff Change	−0.002	−0.010	0.006	0.009	0.002
	(0.003)	(0.010)	(0.004)	(0.014)	(0.011)
Num.Obs.	2802	2802	2802	2808	2808
R2	0.799	0.168	0.481	0.261	0.250

* p < 0.1, ** p < 0.05, *** p < 0.01

Results of log-differences regression for OASDI sub-populations and SSI sub-populations. Controls for demographics and change in unemployement rate as well as state fixed effects are included in all specifications. The difference in number of observations is driven by the underlying beneficiary data.

Table 4: Effect of SSA Staff Loss on Other Social Insurance Receipts

	SNAP	EITC	Other Income Maintenance	Public Assistance Medical Benefits
Log SSA Staff Change	−0.010	0.024***	−0.011	−0.006
	(0.020)	(0.008)	(0.015)	(0.021)
Num.Obs.	944	944	944	944
R2	0.611	0.764	0.727	0.570

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Regressions of log change in program expenditures by county on SSA staff loss 1990-1984. "Other Income Maintenance" includes AFDC and "Public Assistance Medical Care Benefits" includes Medicaid. Expenditure data comes from Bureau of Economic Analysis regional accounts table (CAINC35).

Table 5: Effect on Average Benefit Receipts

	OASDI				SSI		
	Total	Retirement	Disability	Survivors	Total	Old Age	Blind & Disabled
Log Staff Change	−0.001	−0.002*	−0.002**	−0.001	0.000	0.000	−0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Num.Obs.	941	941	941	941	948	948	948
R2	0.989	0.902	0.968	0.984	0.451	0.423	0.431

* p < 0.1, ** p < 0.05, *** p < 0.01

Results of log-differences regression for OASDI (specifications 1-4) and SSI (specifications 5-7) average benefits payments on log change in SSA staffing. Average benefit is calculated by dividing the total dollar value of benefits receipts per program by the total number of recipients in that program. Regression includes controls for demographics and change in unemployment rate plus state fixed effects. The difference in number of observations is driven by the underlying beneficiary data.

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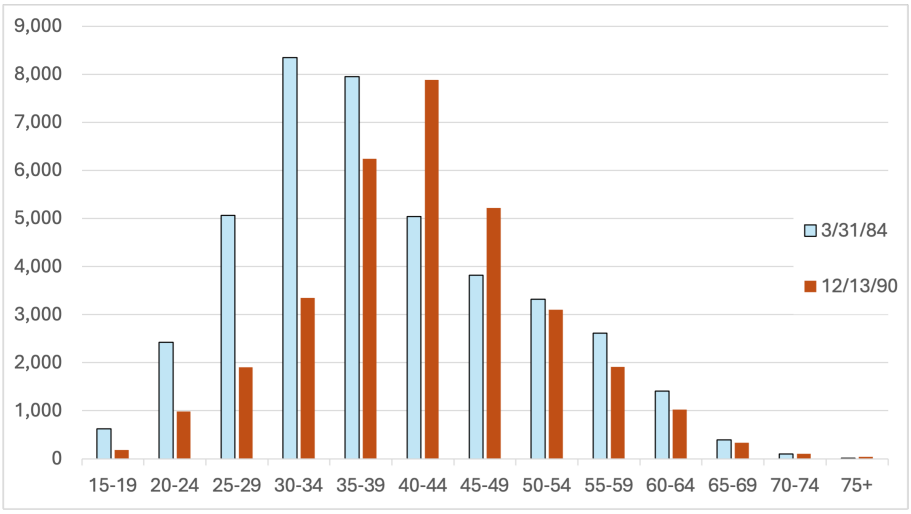
6 Appendix

Figure 3: Pending Workloads

	Fiscal Year					
	1984	1985	1986	1987	1988	1989
Accuracy Rates (percent)	Higher is Better					
SSI payment	96.7	96.7	96.1	96.2	96.5	96.6
RSI payment	99.5	99.5	99.6	99.7	99.8	99.8
SSI process	96.7	96.7	98	98.1	missing	missing
RSI process	95.3	97.1	97.1	96.7	missing	missing
DI process	94.9	96.3	96.6	94.3	94.7	94.6
Processing Timeliness (days)	Lower is Better					
RSI claims	24.1	22	21	20	20.2	19.3
DI claims	69.7	70	81	74	73.7	73.7
SSI-aged claims	15.4	12	10	11	11.3	13.5
SSI-blind/disabled claims	71.4	65	78	77	76.8	83.4
Reconsiderations	50.8	53	65	59	55.5	59.1
Hearings	185	167	172	198	216	215
Pending Workloads (thousands)	Lower is Better					
Field Offices:						
RSI claims	151	155	116	107	105	85
DI claims	260	233	277	233	205	214
SSI-aged claims	13	6	5	5	5	5
SSI-blind/disabled claims	169	218	247	216	222	228

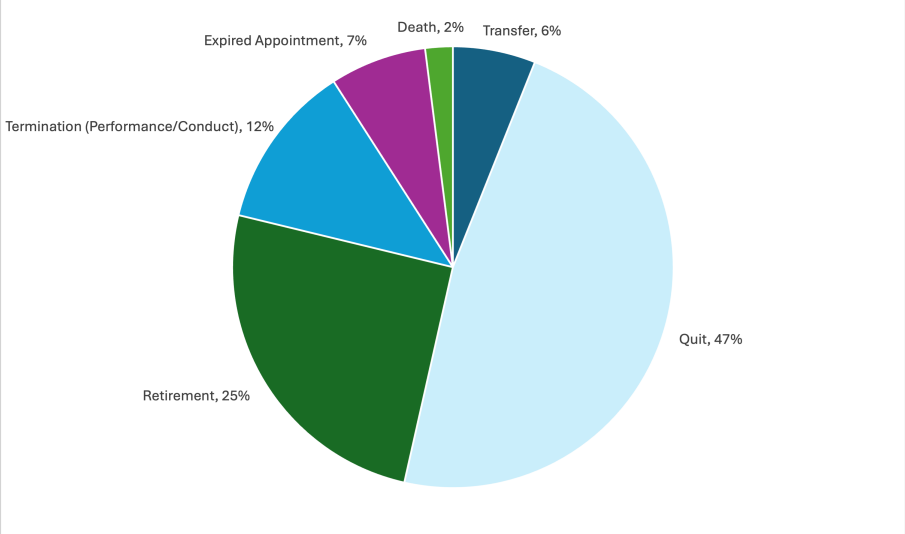
Source:GAO/HUD-91-63 SSA's Performance in Downsizing. RSI is retirement and survivor's benefits, SSI is all of Supplemental Security Insurance, and DI is SSDI.

Figure 4: Age Composition of Staff, 1984 & 1990



Distribution of ages of SSA field office staff before and after the downsizing. Employee ages are provided in the OPM data in five-year buckets. Since the gap in time is six years, the shifting of the distribution over time represents both the attrition of employees and the aging-up to the next bucket for the remaining employees.

Figure 5: Staff Separation Reasons, 1987-1990



This chart represents listed separation reasons for all SSA field office employees from 1987-1990. Prior to 1987 the reason for separation is not available in the data from OPM. There are no employees during this period with a separation due to reduction in force (RIF).

Table 6: Impact of Staff Loss on Pretrend Enrollment

	Pretrend OASDI	Pretrend SSI
Log Staff Change	−0.002	0.002
	(0.003)	(0.006)
Num.Obs.	941	948
R2	0.532	0.381

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Enrollment trends prior to the downsizing, 1980-1983, regressed on change in Employment from 1984-1990 during the downsizing. This confirms that there is no relationship between offices facing downward enrollment trends (controlling for population, population over age 65, and local economic conditions) and degree of employee attrition.

Table 7: Alternative Transformations

	Log(X+1)		Percent Change		Inverse Hyperbolic Sin		DHS Growth Rate	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OASDI								
Total	0.006**	0.004	0.004	0.003	0.008*	0.005	0.008**	0.004
Old Age	0.004	0.002	0.005	0.005	0.007*	0.004	0.006**	0.002
Disability	0.015**	0.018	0.017*	0.007	0.026**	0.021	0.019**	0.019*
Survivors	0.004	0.001	0.003	0.005	0.003	0.003	0.003	-0.001
SSI								
Total	0.032***	0.080***	0.018	0.045*	0.034**	0.086***	0.026***	0.074***
Old Age	0.025*	0.110***	0.011	0.061**	0.017	0.111***	0.011	0.098***
Blind/Disabled	0.025**	0.060***	0.017	0.036	0.031*	0.067**	0.022**	0.054***
Population Weights	No	Yes	No	Yes	No	Yes	No	Yes

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Each cell represents an individual regression, with the change in enrollment by program or sub-program indicated on the left and the transformation, indicated by column, without and with population weights. Population weights are from 1990 decennial census. Regression 1, log change without weights, is the summary of original results from Table 1 and Table 3